The OIL WEEKLY
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OIL and GAS ENGINEERING
FOR OIL AND GAS PRODUCTION, PIPE LINE DIVISIONS
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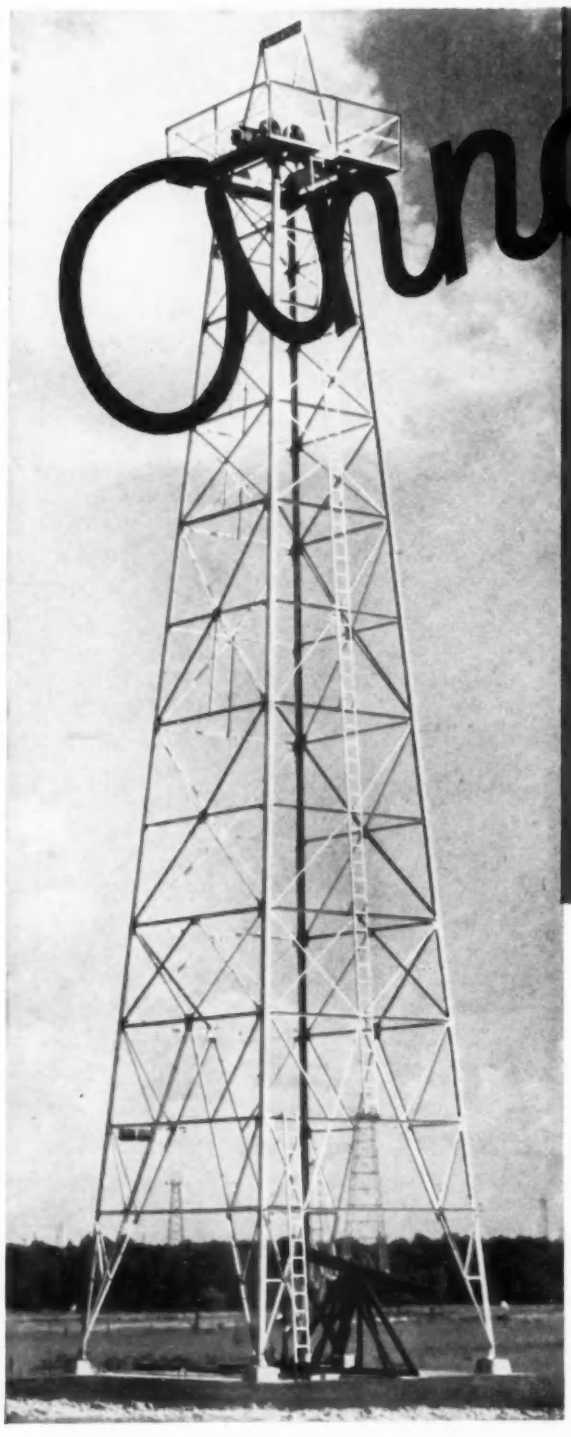

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THE OIL WEEKLY

ENGINEERING « STATISTICS » THE WEEK'S NEWS

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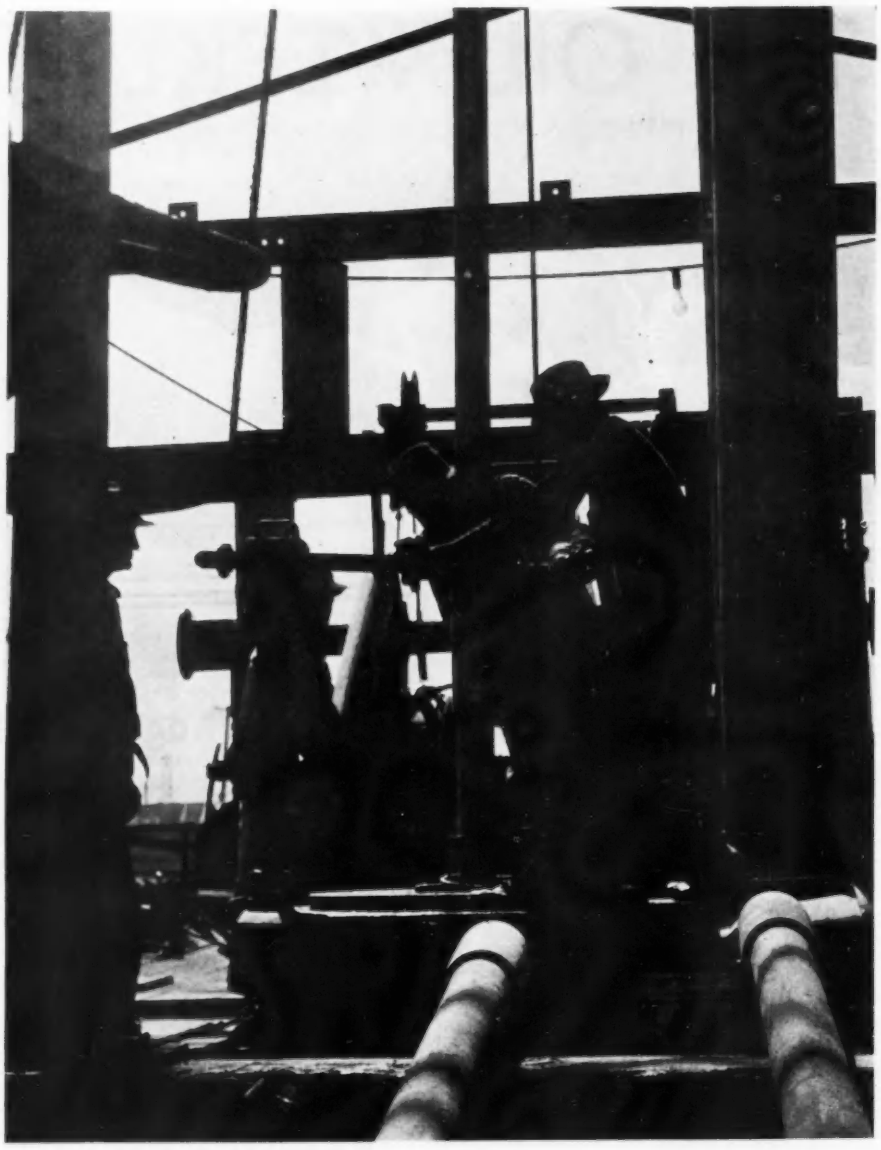

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VOLUME 73, No. 8

AUGUST 6, 1934

THE OIL WEEKLY

FOR OIL AND GAS PRODUCTION AND
PIPE LINE DIVISIONS

ENGINEERING • NEWS • STATISTICS

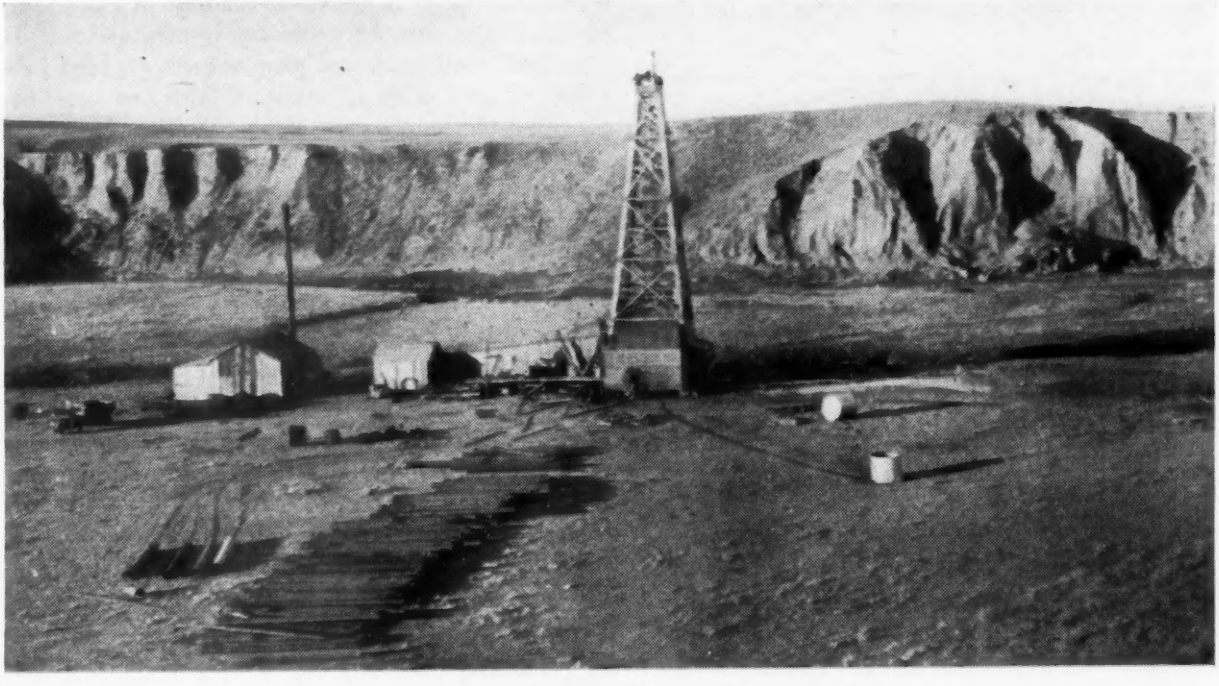
The Changing Panorama

During the overproduction period that has confronted the oil industry a great many producing properties have been shut in and a large number of others have been permitted to produce with little attention. These conditions were largely the result of low crude prices, which prohibited profits on small capacity wells.

During the past year many of these shut-in properties have been returned to a producing basis. In California 2011 shut-in producers with a daily potential of 100,042 barrels have been opened up. The same condition applies to a lesser degree in North Texas, North Oklahoma and Kansas. The opening of these shut-in wells is a very definite indication of improved conditions in the oil industry. The action is due principally to a higher crude price, but another large factor is the approach of oil production to levels more equal to consumption demands.

Placing these formerly shut-in wells back on production means much to the industry and to the general welfare of the country. It creates employment, which increases purchasing power and therefore consumption. In California alone it is estimated at least 800 additional men have been required to operate wells that have been opened during the past year.

During the past few years we have learned much



A wildcat well in Southern Alberta, Canada

about the value of efficient and economical operation. Consequently, a company placing a shut-in property back on production tries, naturally, to determine if the oil can be produced and handled more efficiently. In many cases this means the purchase of new equipment, the cleaning out of wells, etc. Some outstanding examples of increased production from old stripper well properties has been the result of such work, thereby reviving the interest in wells capable of producing only small amounts on the pump.

The opening of shut-in properties is a practical engineering problem of great importance. A discussion of the various problems, difficulties and considerations encountered is of interest. Page 22.

Deep Drilling

Today, drilling reports carry four wells in the United States that are bottomed at depths exceeding two miles. Unfortunately, three of these four tests are confronted with fishing jobs at this time, while the fourth is preparing to test saturated formations.

This further emphasizes the achievement last week of Gulf Production Company in running and cementing 10,301 feet of 7⅝-inch casing at its McElroy 103, which established a new deep record for strings of pipe; although General Petroleum Corporation, in its Belridge 1, did land a 4¾-inch liner at a greater depth, 11,377 feet. The latter, however, cannot be considered as the bottom of a full string of pipe. In this well 9616 feet of 4¾-inch pipe was suspended at 9616 feet and then 1754 feet of 4¾-inch liner was landed at 11,377 feet, leaving a seven-foot gap in the string from 9616 feet to 9623 feet. The McElroy well, therefore, can claim the honors of setting a new world's record for length of any size casing strings, as well as for deep cementing jobs. This was not made entirely clear in The Oil Weekly, July 30.

Many factors enter into deep drilling operations, and much study is still needed on this important problem, the success of which enlarges materially the world's crude oil reserves, and therefore means much to the future of the industry. It will be an outstanding engineering study for several years. Page 33.

The Oil Man's Calendar

August

24-27 *Drake Well Memorial Celebration, Titusville, Pennsylvania.*

September

10-14 *American Chemical Society, Cleveland, Ohio.*

19-21 *National Petroleum Association, Atlantic City, New Jersey.*

October

1-5 *National Safety Council and American Society of Safety Engineers, Cleveland, Ohio.*

12-13 *A. I. M. E. Petroleum Division, Tulsa, Oklahoma.*

29 *American Gas Association, Atlantic City, New Jersey.*

November

12-15 *American Petroleum Institute, Dallas, Texas.*

American Association of Petroleum Geologists (Pacific Section), Los Angeles.

Conditions

Evidence of better conditions in the petroleum industry is reflected in statistical figures for the month of July. Gasoline and crude stocks declined, crude production excess over allowables was lessened, and drilling operations increased.

Gasoline and crude stocks showed a considerable drop as compared with June, which improves the position of the industry. Stricter control of production is reflected by the lower excess output, which was the lowest since November. The establishment of another increase in drilling operations carried this phase of the industry to a new four-year peak. This important development is a direct reflection of operators' opinions as to the stability of the industry and illustrates the need many companies are feeling for additional crude oil reserves. Pages 7 and 9.

Something Wrong

Although the new one tenth cent federal tax levy imposed on producers and refiners of crude oil became effective midnight June 9, it has not been enforced. It is stated the delay is due to the inability of enforcement agencies to obtain the necessary printed forms. The cash bond requirement of plant owners engaged in refining or processing of crude oil also has been postponed on the same excuse.

Both measures were expected to become large factors in promoting stabilization in the oil industry, particularly in eliminating the practice of producing and refining "hot" oil, which has proved so disastrous to market prices.

It is a sorry state of affairs when a mere printing job delays the enforcement of two such important measures. It is the poorest kind of an excuse. Something is wrong somewhere. A two months postponement because of the inability to print necessary forms does not seem likely, and probably is not the real reason behind the delay. If the excuse offered is true, something should be done immediately to correct it.

Meanwhile, as oil men wait to see if the new measures are to be enforced, those desiring to produce and refine "hot" oil are continuing to do so, and without interference, and the remainder of the industry struggles along with this heavy burden on its shoulders; and all because of a little printing job.

The Outlook Favorable

The petroleum industry's statistical position was improved in July, and further betterment is in prospect for August, with crude and gasoline production allowables lower. Prices continue relatively high, and drilling is at four-year peak.

JACK LOGAN
Associate Editor

DESPITE offerings of gasoline at distress prices by some East Texas refineries and resulting weakness of retail prices in several Texas metropolitan areas, the present outlook for the oil industry is predominantly favorable.

July brought the best regulation of crude production and refinery operations so far achieved under the oil code, and the result was a noteworthy improvement in the industry's statistical position. For August additional marked improvement is in prospect, by virtue of substantial reductions of allowable production of both crude oil and gasoline.

In July gasoline stocks were reduced about 3,000,000 barrels, and crude stocks were lowered more than 1,000,000 barrels,. Those results were accomplished even though crude production, including "hot" oil, averaged probably 75,000 to 100,000 barrels daily in excess of the federal government allowable for the month.

Although August is normally another period of heavy consumption, the oil administration ordered a material reduction of allowable gasoline production during the month, aiming at a 4,000,000-barrel additional reduction of stocks. The administration also reduced the crude production allowable 81,000 barrels daily for August. Assuming that fair success will continue in application of the control programs, August will therefore bring further reductions in gasoline and crude stocks, and prices may be expected to become firmer or to show improvement.

Oil Prices Near Year's Best

Crude oil prices have remained practically unchanged since inauguration of the oil code last September, and although they have been regarded at times in the past several months as being in jeopardy, the reduced allowables for August virtually assure maintenance of present quotations during the month or longer. Most petroleum products also are commanding relatively favorable prices.

The industry's chief product, gasoline, is selling generally, wholesale and retail, at prices not far under the year's best, although distress offerings of East Texas refiners brought a little weakening of the Mid-Continent market structure during the past week. While major companies were paying from 3⅞ to four cents a gallon the latter part of the week for East Texas third-grade gasoline bought under oil administration approval, the same commodity was available in the district at prices ranging down as low as 3¼ cents a gallon. The latter price, however, largely involved plants not participating in the market stabilization plan for the district.

Under the plan, major companies are purchasing surplus gasoline from independent refiners, and the latter are pledged to run only legal crude and to comply with gasoline production quotas assigned to refineries by the oil administration. By the end of July the oil administration had approved 25 East Texas contracts, covering 42,400 barrels of gasoline. Prior to inauguration of the plan in early July, third-grade gasoline was selling generally in the area at 3¼ cents a gallon.

The whole Mid-Continent market has improved in consequence of the surplus gasoline buying in East Texas, with Group Three prices for the past couple of weeks around four cents a gallon for third-grade, 4⅝ cents for middle grade, and 4⅞ cents for premium material.

Retail gasoline prices in the Mid-Continent and eastward have also registered comparative strength in recent weeks, and market disturbances have been confined chiefly to Texas metropolitan areas within trucking distance of the East Texas refining district. Dallas and Fort Worth still had 10-cent average retail prices for third-grade with a few nine-cent signs at independent stations last week. While Houston, which had

steadily maintained a 15-cent minimum price throughout several months of low prices in North Texas, the market broke within the past 10 days to 13 cents, then to 12 cents.

On the Pacific Coast all petroleum products as well as crude oil continued to show market strength last week, after several weeks of operation of the stabilization plan for that region. The Pacific Coast plan is similar to that employed in East Texas as regards surplus gasoline purchases and banning of "hot" oil refining, but it also bolsters service station prices. Through the plan the retail gasoline market has been stabilized at higher levels, although a small percentage of stations are selling below official prices.

Drilling at Four-Year Peak

Success which has been achieved in controlling production of crude oil and gasoline and thereby in stabilizing and improving the markets has generated confidence within the industry. Evidence of the confidence may be seen in the records of drilling activity. During most of 1934 field work has been continually expanding.

In July another high record was set. Averaging 53.6 per day, well completions were the highest for four years. While completions averaged 76.6 daily during July, 1930, sharp curtailment of drilling occurred thereafter. Completions dropped to 52.4 daily in August, 1930, then still lower, and that August figure was not equaled again until last month.

While Texas has tended to suppress drilling in other states since discovery of the prolific East Texas field late in 1930, the areas outside Texas are now coming back. While Texas experienced a slight decline in drilling in July, along with California and Michigan, increases were recorded by the Eastern States, Oklahoma, Kansas, Louisiana, New Mexico and the Rocky Mountain States.

Protests Against Lower Allowables

Although lower crude and gasoline allowables for August are calculated to bring stability, stronger markets, and better prices, the smaller allocations mean considerably less production for some well owners, and less gasoline output for some refiners. With prices relatively high, the cuts are naturally hard to take. They have been taken, nevertheless, of course, but not without howls. And the howls may mean that control efforts are foredoomed to prove not so effective in August as in July.

The protests have been mainly, of course, from Texas and California, which bore the brunt of the allowable reductions. Of the 81,000-barrel total cut in the crude production allowable for the nation, Texas was called upon to stand 40,800 barrels, or over half; while California was assigned a 19,200-barrel cut, or nearly half the remainder. Oklahoma drew only a 9400-barrel reduction.

Both producers and refiners in California protested against the lower allocations for August. In Texas the chief protests have been from independent operators in the East Texas field. The Texas crude production allowable as of August 1 was fixed by the Texas Railroad Commission at about 25,000 barrels per day less than the federal agency allocation, considering that the allowable increases gradually with completion of new wells in the East Texas field. Thus the state daily allowable was cut back about 65,000 barrels during the first part of the month. Some fields and districts were granted increases, and some were reduced, but the large net reduction fell mainly on the East Texas field. Whereas the allowable for that field had risen in July to about 471,000 barrels daily, it was cut back as of August 1 to about 400,000 barrels.

East Texas independents were rallying in Dallas on the eve of the effective date of the new proration order. They planned to stage a general meeting in East Texas later in the week for the purpose of seeking a re-hearing. Major companies control the greater proportion of production in East Texas, and were consequently hardest hit, the reduction involving a cut of more than 4000 barrels daily for a single leading producer. The big companies seemed to be generally in favor of the lower allowable, nevertheless, because of its expected favorable influence on the crude oil market as well as on the Mid-Continent gasoline market.

New Taxes vs. "Hot" Oil

While the deep cut in the East Texas allowable may be expected to result in some increase in violations and a gain in the already large output of "hot" oil in the district, there is a possibility that any tendency toward higher "hot" oil production may be counteracted soon by the new one-tenth cent per barrel federal taxes on crude oil at the well and on gasoline at the refinery.

The taxes were designed primarily to put the "hot" oil merchant "on the spot," to be caught by either a revenue agent or an oil code officer. So far "hot" oil production has continued at high levels, although the tax law became effective at midnight June 9, 1934. But the taxes have not yet actually gone on trial as "hot" oil preventives. Collection of the taxes has been held up pending receipt of necessary forms from the Government Printing Office by offices of the Internal Revenue Department.

There has been similar delay in regard to the federal government's requirement that refiners post bonds to guarantee payment of the new taxes. Refiners have been granted several extensions beyond the original deadline for putting up the prescribed cash or equivalent bonds, in view of difficulty many have had in making the bonds. In this connection, many refiners who have complied with the laws and operated at losses are in worse condition than "hot" oil refiners, and are therefore less able to post the required bonds.

Production Control Effective in July *and Drilling Higher*

STATISTICS of the petroleum industry of the United States for July were predominantly favorable. Showing reduction of stocks of both crude oil and gasoline, they reflect success by the governments and the industry in controlling the output of wells and refineries.

Indicating continued expansion of drilling activity, they also reflect the relatively favorable prices prevailing for crude oil and refined products, and the general feeling in the industry that stabilization efforts are not only currently successful but reasonably likely to continue so.

Although crude oil production exceeded the national allowable under the oil administration's program for July by 37,000 barrels daily, having averaged 2,567,605 barrels per day, the excess was the smallest for any month since inauguration of the oil code, with only the exception of November, 1933, when output was under the allowable.

The above figure on July production is based on American Petroleum Institute weekly estimates, and as usual, does not include any allowance for "hot" oil, or oil produced surreptitiously. For July, "hot" oil production continued relatively high, as in preceding months, although confined mainly to the East Texas field. That area averaged perhaps 75,000 barrels "hot" oil production daily during the month. Total actual production is consequently indicated to have been around 100,000 barrels per day higher than the federal agency allowable during July.

WELLS COMPLETED IN THE UNITED STATES

(Including oil wells, gas wells, and dry holes)

Month	Daily Average
January, 1933	30.0
February	30.6
March	26.6
April	25.5
May	25.6
June	21.1
July	23.1
August	30.7
September	36.5
October	40.9
November	46.9
December	47.7
January, 1934	39.7
February	38.1
March	40.6
April	44.0
May	50.7
June	51.5
July	*53.6

*Highest since July, 1930, when completions averaged 76.6 daily. Average dropped in August, 1930, to 52.4, and remained below that figure until July, 1934.

Although the crude production allowables as set by the oil administration are supposed to represent estimated market requirements, the statistics for July show that the allowable for that month, as in other months under the code, proved in reality to be substantially less than requirements. For despite production of possibly 100,000 barrels daily above the allowable, there was some withdrawal of crude from storage during the month in meeting consumptive requirements; and even heavier dipping into crude stocks would have been necessary if refinery operations had not been slowed down below normal to permit reduction of gasline stocks.

Crude Stocks Reduced

Although complete figures are not yet available, weekly reports to the federal government by companies holding 100,000 barrels or more crude in storage indicate that the nation's crude stocks declined more than 1,000,000 barrels during the first three weeks of July. During the remainder of the month they declined considerably more, it is indicated, as the American Petroleum Institute reported a drop of 45,000 barrels daily in crude production for the week ending July 28, while runs to stills were boosted 35,000 barrels daily.

The latest available official figure on total crude stocks is the Bureau of Mines report of 355,883,000 barrels as of June 1. During June the crude stocks increased over 3,000,000 barrels, it is indicated, due to sustained crude production in the face of meeting of about 3,000,000 barrels of the gasoline consumption with material from storage. In July, however, as stated previously, a reduction of over 1,000,000 barrels in crude stocks is indicated, despite another 3,000,000 barrel withdrawal from gasoline stocks.

That a reduction in crude stocks was possible in July, in contrast with the in-

Monthly Summary of United States Drilling and Production, July, 1934

State—	Month of July, 1934						Cumulative, January through July, 1934					
	Completions	Oil wells	Gas wells	Failures	Initial Prod. Bbls. Daily	*Total Bbls. Oil Prod.	Completions	Oil wells	Gas wells	Failures	Initial Prod. Bbls. Daily	*Total Bbls. Oil Prod.
Oklahoma	214	134	5	75	88,542	16,038,650	1,135	730	63	342	622,052	105,431,000
Kansas	111	74	2	35	29,232	4,177,850	520	350	12	158	164,984	26,230,350
Texas	1098	801	24	273	3,151,902	32,370,000	5,859	4,337	148	1,374	18,022,504	208,370,400
Louisiana	90	37	10	43	19,194	2,974,050	442	223	30	189	106,138	17,015,950
Arkansas	10	5	..	5	710	987,100	42	16	..	26	2,405	6,630,150
Southeastern States	5	..	1	4	.....	.....	22	..	5	17	.....	.....
Eastern States	215	89	60	66	2,462	2,918,650	1,173	480	403	290	10,059	20,640,950
Michigan	57	34	3	20	45,029	945,950	285	192	22	71	146,487	6,140,250
Rocky Mountain States	34	21	6	7	5,352	1,510,400	122	80	13	29	13,658	8,931,600
New Mexico	10	9	..	1	52,960	1,493,400	48	34	4	10	92,340	9,469,250
California	32	27	2	3	50,020	16,179,800	295	210	2	83	304,230	102,657,718
Total	1876	1231	113	532	3,445,403	79,595,850	9,943	6,652	702	2,589	19,484,857	511,517,618

*Preliminary, subject to revision.

Production and Stocks

UNITED STATES CRUDE OIL PRODUCTION

Output in April, 1934, compared with preceding months.

(Based on American Petroleum Institute estimates, which do not include oil which may have been surreptitiously produced.)

Month	Daily Average (barrels)	Federal Agency Allowable
Jan., 1933	1,960,400	.....
February	2,094,950	.....
March	2,176,550	.....
April	2,107,550	.....
May	2,681,050	.....
June	2,616,100	.....
July	2,650,500	.....
August	2,748,100	.....
September	2,568,250	2,413,700
October	2,392,900	2,338,500
November	2,267,243	2,338,500
December	2,266,426	2,210,000
Jan., 1934	2,233,505	2,183,000
February	2,239,070	2,183,000
March	2,339,950	2,282,800
April	2,420,950	2,366,200
May	2,575,380	2,366,200
June	2,588,100	2,528,300
July, 1934	*2,567,605	2,530,300

*Preliminary, subject to minor revision.

MOTOR FUEL STOCKS

(American Petroleum Institute figures, as shown in weekly reports.)

Date	Motor Fuel stocks, bbls.
September 9, 1933	50,913,000
September 30	50,457,000
October 28	52,727,000
November 25	51,934,000
December 30	51,580,000
January 27, 1934	50,229,000
February 24	55,976,000
March 24	57,879,000

After March 24, 1934, figures shown represent stocks of finished gasoline, to be marketed as motor fuels, including natural gasoline which has been blended, and gasoline made from refinery still gases.

March 24	57,011,000
March 31	57,098,000
April 28	56,011,000
May 26	54,493,000
June 30	51,405,000
July 28	*48,597,000

*Stocks of motor fuel on July 29, 1933, aggregated 52,722,000 barrels.

CRUDE OIL STOCKS

(Since Oil Code Inauguration)

Bureau of Mines figures as compiled monthly, comprising all crude in storage in the country.

At end of:	Total Bbls. in storage
August, 1933	360,001,000
September	359,979,000
October	356,885,000
November	355,614,000
December	355,394,000 / *354,305,000
January, 1934	353,642,000
February	351,641,000
March	354,067,000
April	354,350,000
May	35,883,000

*On revised basis, 1,089,000 barrels having been transferred from crude to fuel oil in California.

Trend of stocks situation since end of May, figures being from weekly reports to federal government by companies *holding 100,000 barrels or more.*

May 26	340,321,000
June 30	343,707,000
July 21, 1934	342,611,000

crease in June, is accounted for by keeping of the crude production allowable at practically the same figure and by closer adherence to the allowable, as well as by continued relatively high consumption of petroleum products, with July demand comparing favorably with that for June.

Gasoline Stocks Cut

More important than the reduction of crude stocks in July was the sharp lowering of gasoline stocks. It was the second consecutive month of drastic reduction of stored gasoline. During June the country's gasoline stocks had been reduced 3,000,000 barrels, and in July another reduction of approximately the same amount was effected. Stocks of finished gasoline aggregated 48,597,000 barrels on July 28, according to the American Petroleum Institute.

The gasoline stocks situation has been improving for four months, April and May, as well as June and July, having brought reductions of the stocks. As compared with the 48,597,000 barrels of gasoline in storage July 28, there had been 57,098,000 barrels on hand March 31, when the year's peak was reached. The reduction during July brought stocks below the year's low mark reached in January, and also to the record "low" since inauguration of the oil code last September.

Contributing largely to the reductions of gasoline stocks in July, as well as in June and May, were market stabilization plans worked out by the industry with cooperation of the federal government, involving concerted action of major companies in meeting part of their gasoline requirements by purchases of surplus or distress material held by independent refiners. During July such purchasing plans were applied with noteworthy results in East Texas and on the Pacific Coast. In addition to providing markets for surplus gasoline, the plans involved obligation of the independent refiners to comply with gasoline production quotas assigned them by the oil administration.

Drilling at Four-Year Peak

Drilling activity reached a four-year peak in July, stimulated apparently by the petroleum industry's favorable statistical condition, its stability under current control efforts, and the accompanying relatively good prices for most petroleum products as well as crude oil. The industry appears to be generally confident, judging by this continued expansion of field work, that prices will continue around present levels or show improvement. Indirectly, therefore, there seems to be faith that the future will bring continued success in control of crude production and refinery operations.

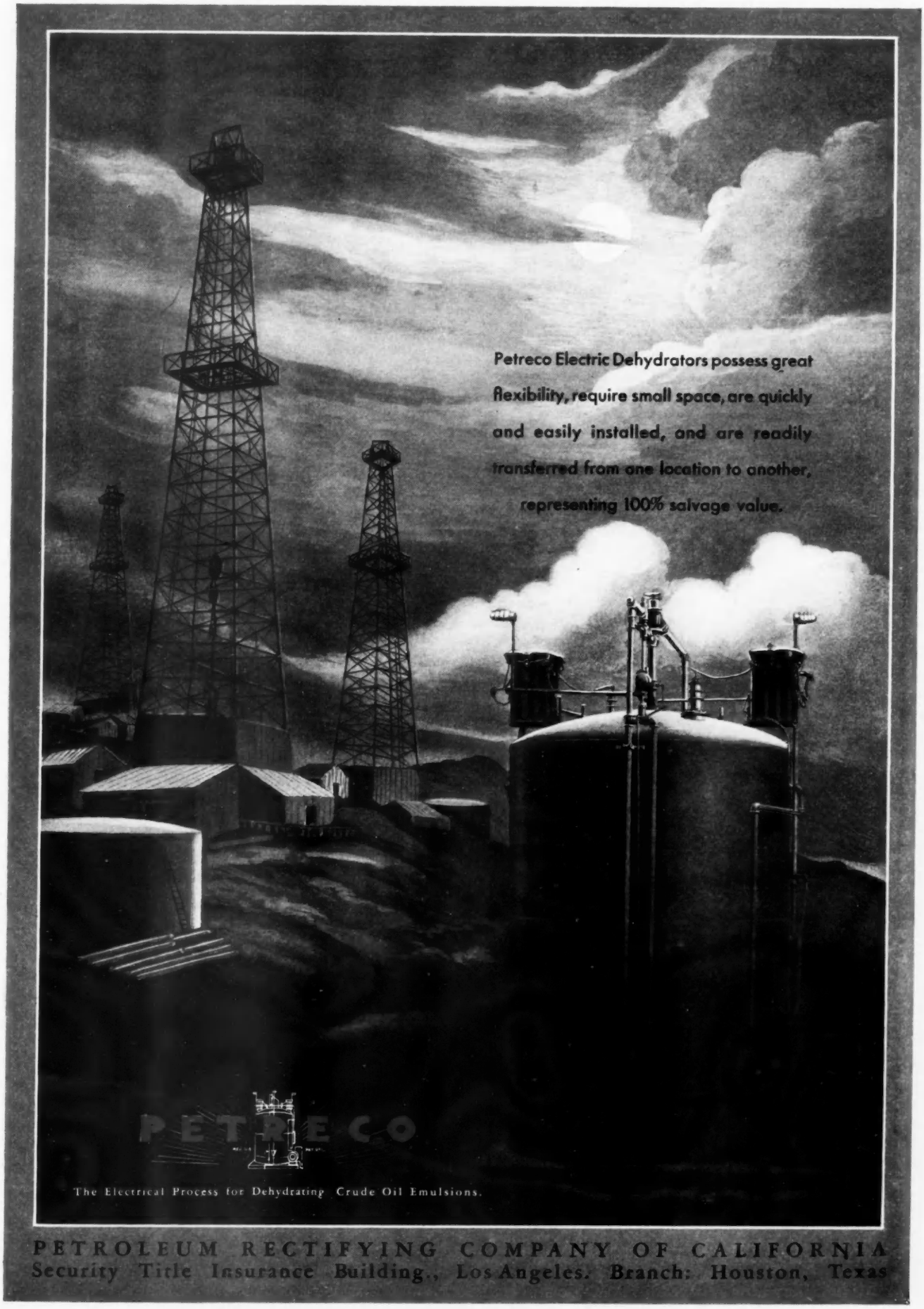
During July there were on the average 53.6 well completions daily, including oil wells, gas wells, and dry holes. Field activity was greater than it had been since July, 1930, when completions averaged 76.6 daily. Sharp curtailment of drilling occurred in August, 1930, completions dropping to an average of 52.4 daily for the month, and continuing below that figure until July, 1934.

The 53.6 completions per day in July compare with 51.5 daily in June, 50.7 in May, 44 in April, 40.6 in March, 38.1 in February, and 39.7 in January. The peak of drilling in 1933 was in December, when completions averaged 47.7 daily, and the "low" of the year was in June, when there were 21.1 completions daily.

A noteworthy feature of the increase in drilling for July as compared with June was the fact that it occurred in the face of a slight decline for Texas. That state has largely dominated the drilling situation since discovery of the East Texas field nearly four years ago, the development of that area having depressed field work throughout the rest of the country. But other areas and states have been showing pronounced revival of drilling in recent months, and continued to gain in activity in July.

States in which drilling was higher in July than in June included the Eastern States, Michigan, Oklahoma, Kansas, Louisiana, New Mexico, and the Rocky Mountain States. There was no marked decline in field work in any state or district, but slight declines were recorded in California and Michigan as well as in Texas.

While the net change in activity for Texas was a slight decline for July, the only sections of the state to show decreased drilling were North, South, and East Central Texas. There were increases for the Panhandle and the Texas Gulf Coast, while practically no changes were recorded by the East Texas field, West, and West Central Texas.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Austin, Texas.—A special session of the Texas Legislature has been announced for August 27 by Governor Miriam A. Ferguson. It will work out plans for relief during the coming winter.

This session will be of particular interest to Texas oil operators for two reasons.

The relief money voted must be offset by some tax that will retire these bonds. The Texas oil industry has always proved an excellent source of revenue for the state, and it is about the only business which is operating at a profit now. For this reason it is not at all unlikely that the legislature may turn to this industry as a possible source of revenue.

However, probably the most important measure affecting the oil industry that the legislature is likely to consider, is the creation of a new commission to handle oil and gas.

At the time Governor Ferguson announced that the special session would be called, she declined to state whether this question would be submitted, but political observers at Austin feel confident that the subject will be presented before the session is ended.

The stand of the Ferguson on this question is well known. They have supported this proposition before at the regular session in the spring of 1933, when such a bill passed the House by a large majority, only to meet defeat in the Senate.

Control of the large amount of patronage enjoyed by the Texas Railroad Commission is the sort of political plum avidly sought by office-holders. With some two hundred jobs in all departments, it is readily apparent that control of these offices means a political hold on the entire state that might easily perpetuate in office for many years the man who has this power.

The session is not to begin until after the election, which will have an important influence on all legislation proposed. Members will be sure of their ground and able to estimate the effect of their votes on future political activities.

By properly distributing patronage, it is probable that the members of the Railroad Commission can again block this plan effectively. Should the House again approve such a measure, the Senate might be persuaded to vote it down.

However, since the last attempt was made, there have been two important events which will seriously affect the outcome of this measure. Both of these involve the control of hot oil in East Texas.

Friends of R. D. Parker, formerly in charge of oil and gas for the Railroad Commission, feel that he was unjustly treated during the brief period when the commission allowed him a free hand in efforts to control hot oil.

They recognize the fact that he was expected to do, within six weeks, a job that the commission had been unable to complete in the two years before. The appointment of bankers on the tender committee has been considered, in some quarters, as an admission on the part of the commission that they were unable to control the situation.

The second factor is the possible assumption of control of Texas production by the Federal Government along lines similar to those proposed in the Thomas-Disney bill.

Will Investigate Fair Economic Cost of Drilling

Washington, D. C.—Investigations to determine the "fair economic cost" of drilling in the various areas, to be conducted by state drilling practices committees, this week were authorized by the oil administration, to be used by drillers and producers in negotiating contracts.

The administration has already announced minimum costs for areas in Oklahoma and Texas, and this week approved a recommendation by the Kansas committee that fair dealing costs in Zone 3 averaged $3.64 per foot for steam rotary equipment. The zone includes the counties of Sedgwick, Harvey, McPherson, Marion, Rice, Reno, Stafford, Ellsworth, Kingman, Barton, Rush, Russell, Ellis, and Rooks.

This figure, it was stressed by Nathan R. Margold, chairman of the Petroleum Administrative Board, does not constitute price fixing, but was approved as the minimum for negotiations.

Orders have also been issued that no employe in drilling operations shall work more than 936 hours in each six-month period, and any employer permitting an employe to work longer shall be considered a violator of the oil code. The order further defines working hours, providing that no employe shall work more than 48 hours in any seven days and not more than eight hours in any one day, and if an employe works eight hours a day he must be given one day off in every seven and when the maximum of 936 hours has accumulated he must be given time off until the end of the six-months' period.

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The commission plans to require complete inventories of every line upon which will be based rates to be charged that will insure a fair return on investments, but prevent exorbitant charges.

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So far the commission has not determined whether the cost of these items will be furnished by the pipe line company or by commission engineers.

A series of maps must be filed showing the entire pipe line system. These will be scaled 1000 feet to the inch. In addition to these maps, the operators must file a detailed tracing of each unit along the line, such as pumping plants and tank farms, and these maps are to be on a scale of 200 feet to the inch, so that a complete report will be available to commission engineers.

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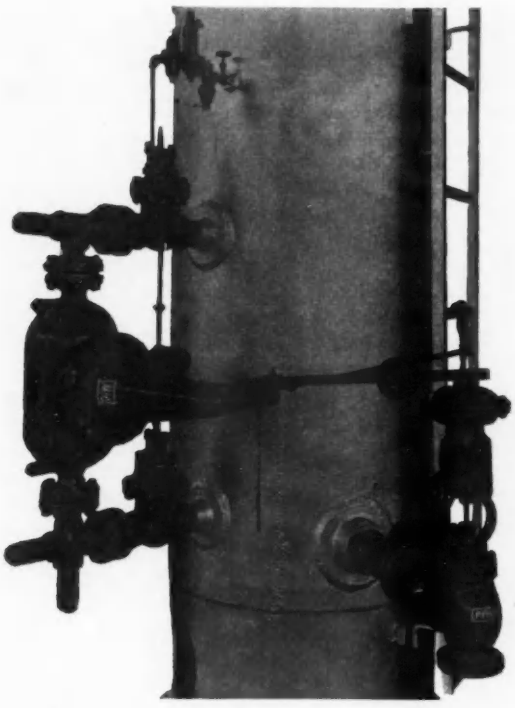
Probably the most expensive item will be the preparation of the inventory. This report consists of a detailed break-down of all items now furnished by the pipe line companies to the federal government, and it is expected that the cost of preparing this information for all the lines may run into several hundred thousand dollars. However, this expense will depend largely on the methods of accounting now in vogue in each company. If detailed costs have been maintained, the



Close-up of P. I. W.'s New Washington, 3 ft. x 15 ft.—500 lb. Separator.

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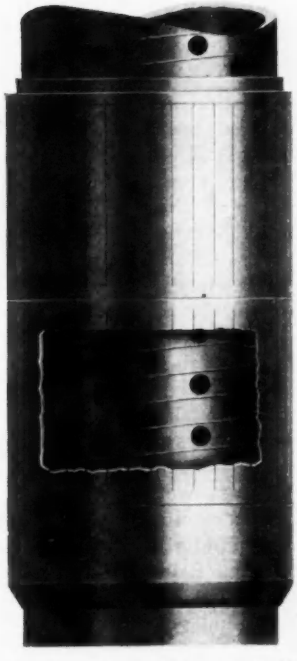
OR

ON BOTTOM



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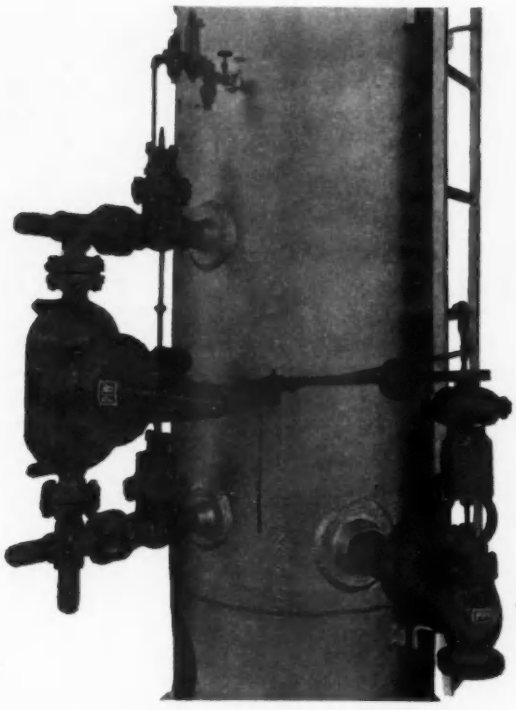

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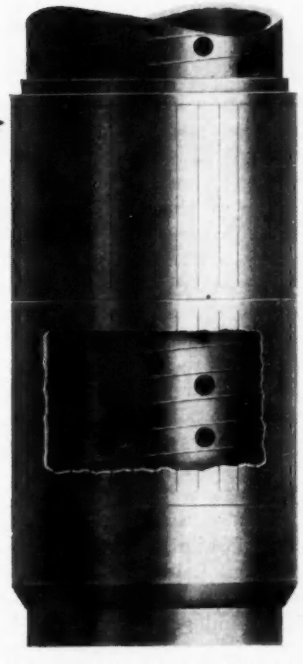

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preparation of the reports will be a matter of bookkeeping routine. Otherwise, the expense may be far greater if the operator has to make a survey.

Commission engineers declined to predict how much time would be required after the figures are assembled for them to prepare a series of rates. Six months or a year, however, may be necessary to correlate the mass of data anticipated and arrive at some estimate of fair return.

East Texas *Situation Despite Trouble,* Looks Up

Tyler, Texas.—A quota of approximately 2300 cars of gasoline has tentatively been allocated East Texas refiners to comprise the August purchases by major and semi-major marketing interests in continuing the gasoline market stabilization program that is sponsored by the oil code administration. Unless the East Texas plant owners continue to step up their crude charges to stills this new buying program is expected to be more effective in building up gasoline prices, as 40 plants, representing 93 per cent of the refining capacity of the district, have signed up to take part in the program.

A wide variation in prices prevails in the East Texas refining district. Plants selling to the larger companies under the sponsorship of the Oil Administration are receiving from 3⅞ to four cents per gallon for their third grade gasoline, while those that refused to come in on the plan are netting an average of about 3¼ cents per gallon for the same grade of motor fuel. A number in the holdout group are said to be endeavoring to defeat the purpose of the program and are willing to pass up an opportunity to realize more from their gasoline as a means of gaining their objective.

Gasoline allocations for August between buyers and refiners were worked out at conferences held in Dallas early last week, under the guidance of Howard Bennette, national co-ordinator of refinery operations, and A. V. Bourque, field assistant, Jules Constantin, East Texas refiner and leader of the independent group. The presence of approximately eight cargoes or about three quarters of a million barrels of distress gasoline stocks in the hands of independent refiners and brokers on the Gulf Coast threatened to block the resumption of buying in East Texas during August by the larger interests. Reports were circulated that this excess stock would be thrown on the market thereby endangering the price structure, but some arrangements have been made for majors to buy up the cargoes in need of immediate shipping instructions.

The "hot" oil situation in the East Texas field remained unchanged during the past week. Estimates on the volume of crude illegally ranged from 70,000 to 85,000 barrels daily.

Local plants scored another gain in crude charges to stills averaging about 70,500 barrels daily for the week ending July 30 with incomplete reports on plants that refuse to divulge information on their operations to the Texas Railroad Commission as required by a special act of the legislature.

During this seven-day period the allowable production of the field was placed at a daily average of 470,660 barrels from 14,963 wells and trunk lines leading from the field reported an average daily crude movement of 474,260 barrels.

Establish Committee to Administer Porto Rico Code

Washington, D. C.—Establishment of a marketing committee to administer the Oil Code in Porto Rico was announced July 26 by the administration in Washington, D. C. The committee is composed of representatives of the oil industry, nominated by the supply companies and retail dealers, according to the advice received from the United States Department of the Interior, Petroleum Administrative Board.

Members of the committee for administration of a Code in Porto Rico are as follows:

E. Noonan, Shell Oil Company; B. Arkin, Texas Oil Company; E. Yeates, Pyramid Oil Company; A. Lopez De Haro, president of the Association of Retailers in San Juan and a Texas Company dealer; Samuel Banza, president of the Association of Retailers at Ponce and a Pyramid Oil Company dealer; Diego Agueros, treasurer of the San Juan organization and a Shell dealer; Jose Carbia Miranda, West India Oil Company; and Eduardo Mendez, dealer in West India Oil Company products.

The above appointments were approved in July by J. D. Collett, acting chairman of the Planning and Coordination Committee of the administration, and by Harold L. Ickes, Secretary of the Interior and administrator of the Code of Fair Competition for the Oil Industry.

Making Survey of Retail Price Margins

Washington, D. C.—A cooperative survey with the oil industry of price margins granted by distributors of gasoline and other oil products to retail dealers, and the general policy of distributors with respect to giving margins was authorized July 29 by the oil administration in an order announced by Nathan R. Margold, chairman of the Petroleum Administrative Board.

Chairman Margold explained that the survey will be conducted by the Marketing Division of the Board, through questionnaires to be sent to refining companies and marketers who are representative of the various sizes and classes of companies engaged in distribution of oil products.

The information which is obtained from the individual distributors in the questionnaires will be confidential data and for the use only of the board in studying the effect of margins and the margin policies of distributors on the prices of gasoline and other products. The general practice of distributors is to guarantee to the retail dealer a difference between the price he pays for supplies and the price for which he sells, which is called a margin.

Foreign Speakers Feature Fall A.I.M.E. Meeting

Tulsa.—Two papers of unusual interest to be presented by foreign technologists are to occupy prominent positions in the program of the annual fall meeting of the American Institute of Mining and Metallurgical Engineers to be held in Tulsa, Oklahoma, October 12-13.

Dr. J. Versluys, professor at the University of Amsterdam, Netherlands, who will present a technical discussion of "Energy Relationships in Oil Bearing Formations," is already well known to petroleum engineers of the world, and his analytical treatment of the subject makes the paper particularly valuable at this time, according to H. H. Power, chief production engineer, Gypsy Oil Company, Tulsa, Oklahoma, who is chairman of the Production Engineering Committee.

Although not so well known in this country as Dr. Versluys, Dr. Cecil May of the Anglo-Persian Oil Company, Ltd., London, England, is one of the foremost petroleum technologists of Europe, with a wide experience in the varied production problems on the scattered leases of his company in the Far East. His paper bears the title, "The Efficiencies of Flowing Wells."

Both these papers will be presented at the session devoted to studies of reservoir energy on the first day of the meeting.

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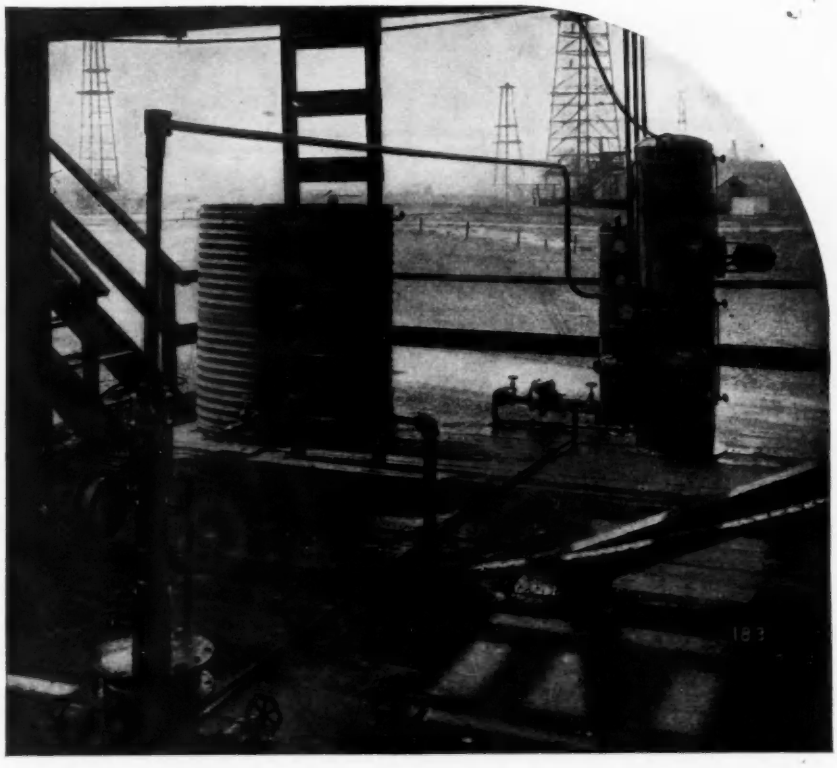

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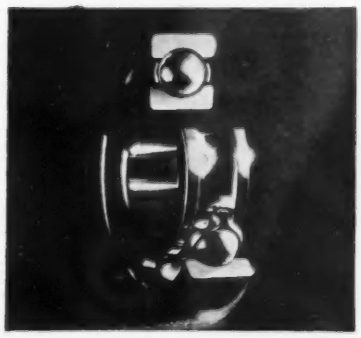

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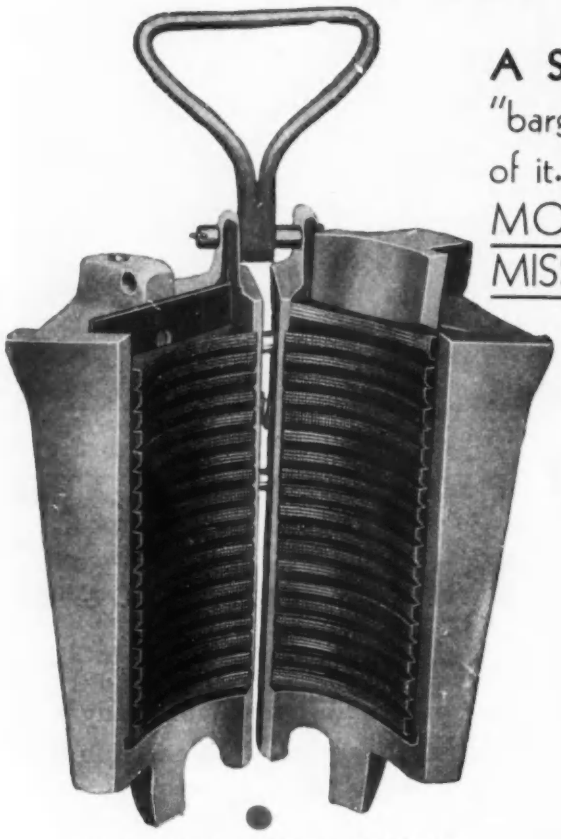

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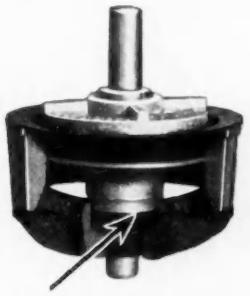

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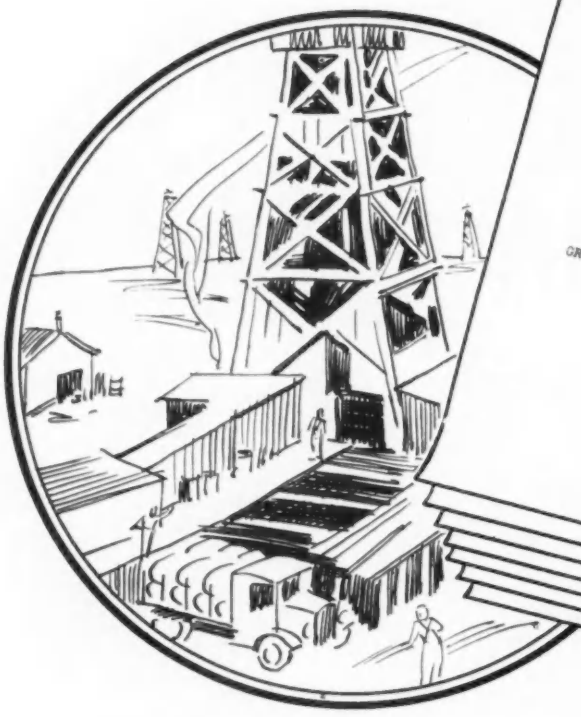

OKLAHOMA NATURAL GAS COMPANY
401 NORTH HARVEY AVENUE
OKLAHOMA CITY, OKLA.

February 8, 1934.

Mr. R. L. Dudley,
The Oil Weekly,
Houston, Texas.

Dear Mr. Dudley:

I received the 1934 copy of the Composite Catalogue of Oil Field and Pipe Line Equipment, and am very glad to extend my compliments to you and your Company on the completeness of the catalog, and to express my appreciation of your courtesy in forwarding this copy to me.

In my opinion, this is the most complete Catalogue of this character published, and I find it a great help in keeping me posted on the latest developments of pipe line equipment.

GR:JEA

Very truly yours,
Glen Rambo,
Superintendent.

Gas men, oil men, pipe line men within the United States and abroad all are finding that the Composite Catalog is a great convenience to them.

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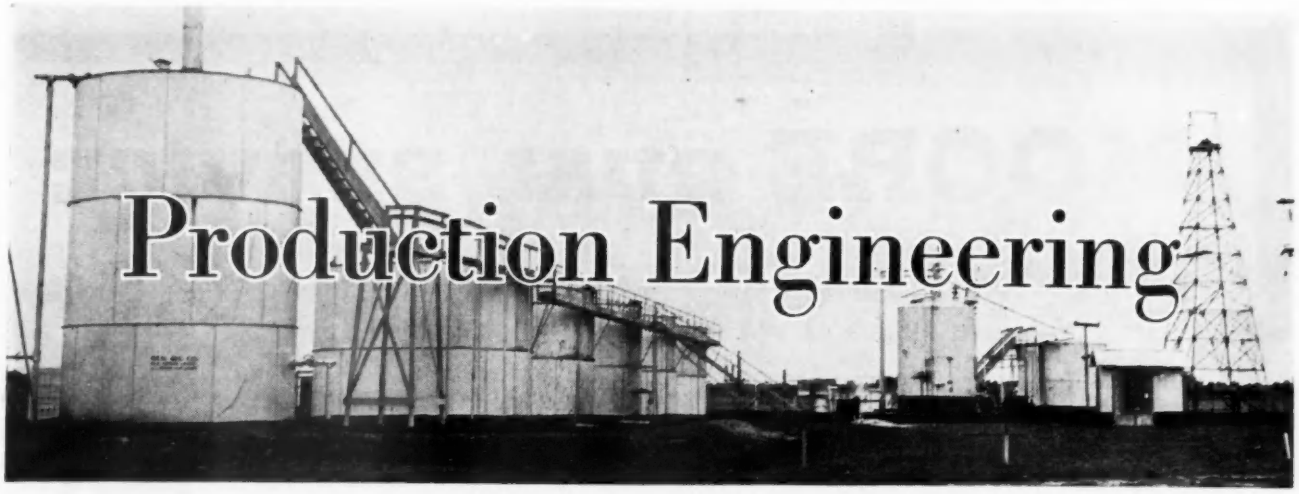


Production Engineering

The Trend in

Petroleum Technology

STANLEY HEROLD

FOR the purpose of determining facts concerning the behavior of a kerosene can, as previously described on this page, two departments of petroleum technology in our higher institutions of learning have agreed to settle the matter by an intercollegiate debate set for December, 1940. The particular question is: "Resolved, that the head of water in the kerosene can, when this can is properly set up, will adjust itself so as to equalize the rates of inflow and outflow." The side supporting the negative is studying diligently the work of Aristotle, while that taking the affirmative is relying greatly upon the sober works of Galileo and Torricelli. Both sides are considerably handicapped, however, by the fact that the original papers are written in Latin, and they have found it necessary first to master the reading of that ancient language. Committees are reporting progress.

IN the meantime we are urged to continue with our normal daily functions of life; we are permitted to expand our conception of the performance of the can in accordance with actual experiment.

Whenever the rate of inflow is changed, the rate of outflow is also changed. The latter increases or decreases according to a rise or fall of head in the can. The same phenomenon is observed at the Kern River fields of the San Joaquin Valley in California. The productive formation is extensively exposed over some five or more square miles of moderately rough country in the foothills to the east of the fields. The strata dips at gentle angles and the exposure itself is within five or six miles of the edge wells in the pools. An excellent catchment and drainage basin is presented to view. After a wet season the total rate of production from the fields increases, and, conversely, after a dry season the total rate decreases. A series of wet or dry seasons has, of course, a more pronounced effect upon the daily recovery. There is approximately a lag of six months between the seasons and the response in production.

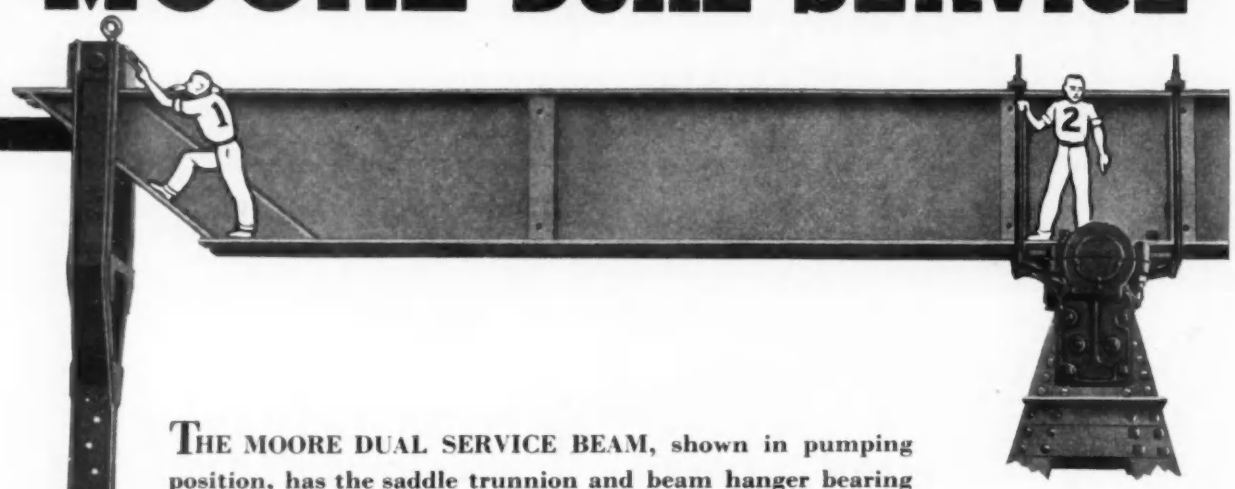
The more holes we punch in the can, or the more holes we drill into the natural reservoir, the lower the head will decline in order to balance the inflow and outflow rates. Regardless of the number of holes the balance will be established at the rate of inflow. A same total production is simply divided among a greater number of holes.

GAS is usually present with oil in natural reservoirs. Its expansion in the vicinity of a newly drilled well has an effect on production the same as the lowering of the head of water in the formation. It is then we have a short period of so-called flush production. Water at the edge of the pool does not start to move until this period is completed, and this usually requires from three to eight months.

ON the side of the San Joaquin Valley opposite the Kern River district, namely in the Maricopa-Taft-McKittrick district, the wells behave as if there were no inflow of water at the exposure of the productive formations. The region is a semi-arid one. Evidently the little rain that does fall is insufficient to furnish water for downward percolation. The case is easily illustrated with the kerosene can by shutting off completely the inflow.

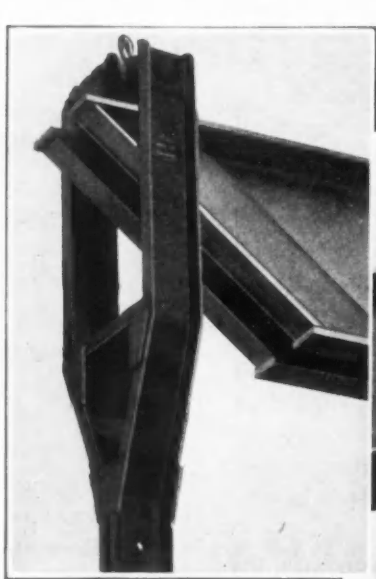
When the rate of production declines in this sort of reservoirs, whether the decline may be ascribed to water or to gas, we must draw straight inclined lines as production curves. These reservoirs are said to be in Volumetric Control.

MOORE DUAL SERVICE

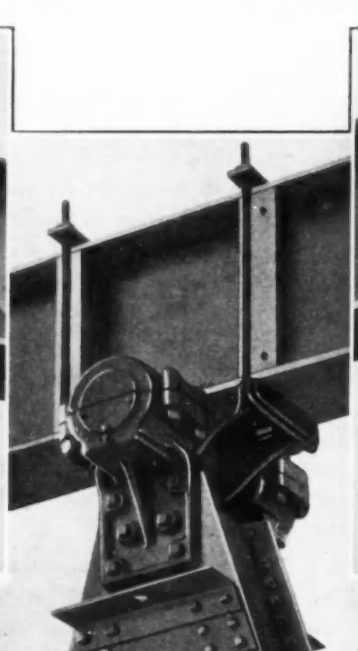


THE MOORE DUAL SERVICE BEAM, shown in pumping position, has the saddle trunnion and beam hanger bearing in the same plane, attaining a minimum deflection in the polish rod. The line drawing at the right indicates this same beam in drilling service.

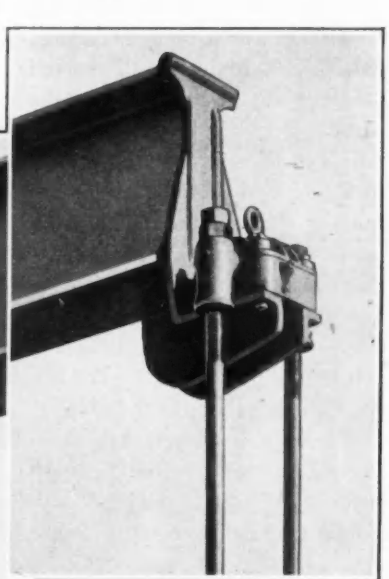
Walking Beams for all types of drilling and pumping service and in lengths up to 27 foot working centers, with ends to give two or three working points on the same level can be furnished. In the design of the beams care has been taken to fully develop the rated capacity of the beam and to avoid concentration of stresses—working stresses being safely within the fatigue limit of the steel. The beams are made of silicon structural steel.



Note the split end for use with either temper screw or pitman stirrup bearing. The bearing (1) is the Moore Oil Bath Stirrup Bearing. The rigid reins and the multiple punching of the Type 30 Pitman and Stirrup permit easy change of length.



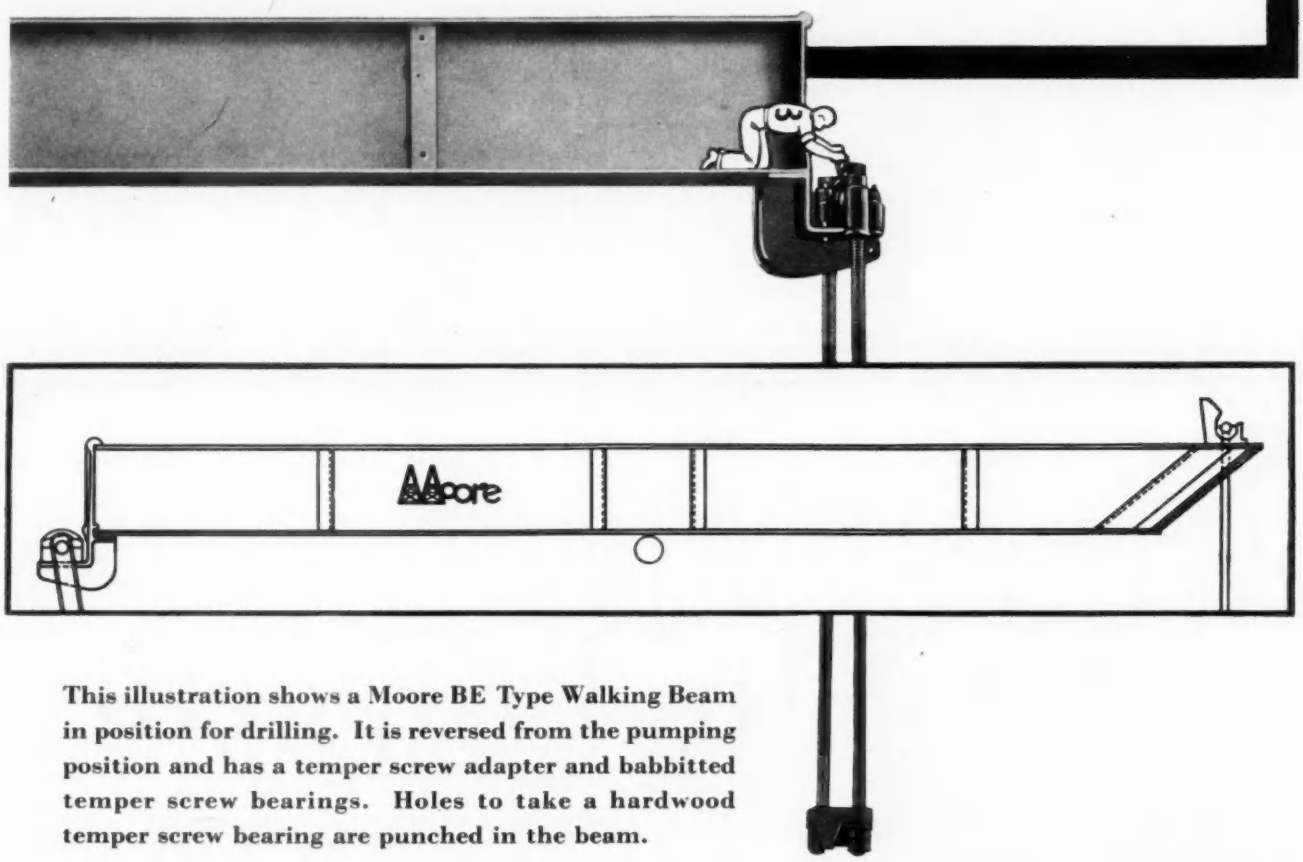
Moore beams are punched to fit A.P.I. saddles. The Saddle and Side Irons shown (2) are Moore Oil Bath Type. The oil level is maintained above the bearing surface, insuring proper lubrication.



The casting illustrated is the Moore "B" end (3) which is adaptable for use with any Moore Beam Hanger as well as with temper screw bearings. Moore Type 20 Beam Hanger is shown.

PUMPING
DRILLING

WALKING BEAM



This illustration shows a Moore BE Type Walking Beam in position for drilling. It is reversed from the pumping position and has a temper screw adapter and babbitted temper screw bearings. Holes to take a hardwood temper screw bearing are punched in the beam.

Address any office of the company for complete information on Moore Walking Beams, or any of the Moore Products as listed below.

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Opening Shut-In Properties

A LARGE number of producing oil properties have been shut in during the over production period that has confronted the oil industry. Some properties have been totally or partially shut in for as long as 10 years, whereas others have been in this condition for only a few years. During the past year a number of these properties have been placed back on production and apparently the various companies having such properties contemplate returning more of them to a producing basis.

In California the fields located in San Joaquin Valley have had by far the greatest percentage of these shut-in properties. The reason for this was due no doubt to the acreage being in larger blocks, lower gravity of the oil, and as it was produced mostly by pumping it was consequently more costly to produce. Also the matter of ownerships entered into the situation. Considerable acreage in this district is owned in fee and such acreage can be shut in as desired, which, of course, is not the case where lease requirements and negotiations with land owners enter into the situation. Therefore because of all the above reasons these fields have borne the brunt of the proration and curtailment necessary when the overproduction of oil was in its most active stage.

Of course, an over production still exists or could exist but apparently other factors such as the oil code, a decline in the flush fields of the Los Angeles Basin, and other considerations have permitted a resumption of operations. One of these other considerations is that today by cracking methods heavy oil can be handled profitably by refineries, instead of piling up in storage as frequently has been the case in the past. A broader utilization of this oil, in addition to its former road oil, fuel oil, and lubricant uses, has been a favorable development.

Wells and Production Opened Up

The work of placing shut-in producers in the San Joaquin Valley back on production commenced principally after July, 1933, although there was some opened up previous to that date. Records disclose that in July, 1933, there were 5,042 shut-in producers and 4,154 active producers; shut-in producers had a daily potential of 147,299 barrels. At this time there are 3,031 shut-in producers and 6,032 operating producers; the shut-in producers have a daily potential of 100,042 barrels. Therefore 2,011 wells have been placed back on production since July, 1933, with a potential yield of 47,257 barrels per day.

The fields in which practically all these wells have been placed back to production are Belridge, Coalinga, Kern Front, Kern River, Lost Hills, McKittrick, Midway-Maricopa and Round Mountain.

Opening this number of wells created employment, which was one of the objects desired. No accurate figure is available but it is estimated these wells require about 800 men to operate and maintain them and for other general lease work.

The wells range in depth from 500 to 4,000 feet and their

THE PICTURES

On the opposite page is a view of the center of Mount Poso field, California. This is in a desert region with very little vegetation and of rough topography, as the picture shows.

Below on this page is a section of Round Mountain field. This is a pumping field of about 2200-foot depth. Evidences of the fault which controls the oil accumulation here are found in the canyon shown in the picture. It also is a country of rough topography.

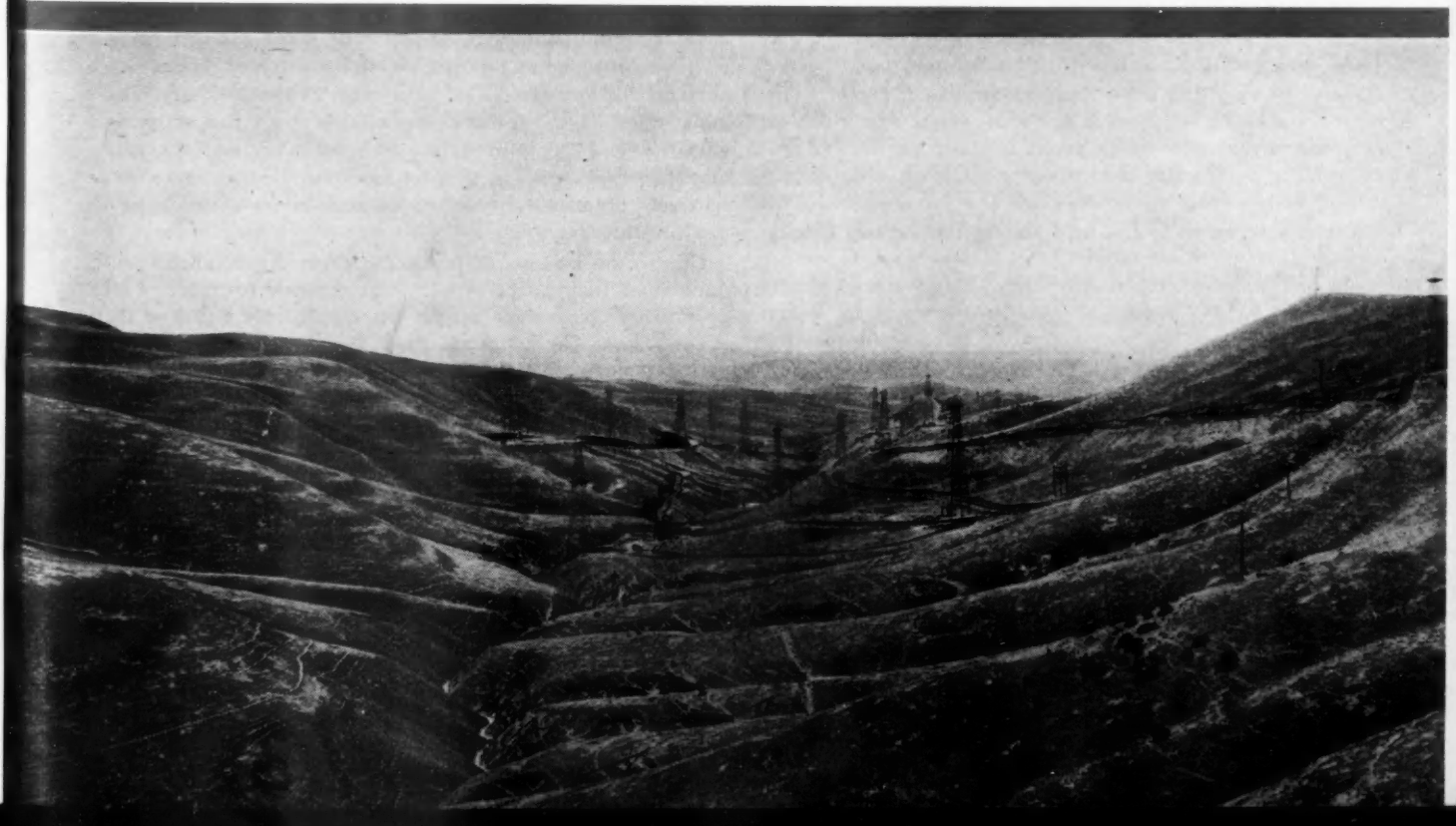
productivity on the pump from five barrels to 500 barrels per day. The fields range in age from only a few years to 35 years. The sub-surface and surface mechanical conditions range from good to very poor, depending on the age of the fields and the conditions met. The water situation problem ranges from very bad in some localities to being practically non-existent at other places. The great range of the conditions encountered naturally have presented many studies of divergent nature as well as a wide range of problems in connection with placing them on the pump.

An organization or company placing a shut-in property back on production naturally tries to determine whether or not the oil can be produced and handled more efficiently and economically than heretofore. This is in line with efficient operation, as well as a result of the economic changes that have instilled in the minds of most producing organizations the absolute necessity of cutting out all unnecessary expenditures. Many changes in personnel have also placed new men in charge, who because of a fresh view point or more critical attitude are apt to discover that various changes in equipment or installations, or in operating procedure will produce more favorable results, which in the final analysis always comes down to the basis of producing oil at a less cost per barrel.

The best producing properties and those most recently shut in usually include properties in the fields discovered in recent years. Curtailment of producing operations in such fields was really done to curb the over production situation. Such properties can be produced profitably at very low crude prices due to their favorable daily yield. This is in contrast to properties of small yield that were shut in where the production cost per barrel equalled or exceeded the price received for the barrel of crude. Although curtailment was thus achieved among this latter class of wells it was due to economic conditions rather than a desire to aid in curing the over production situation.

No matter what the purpose may be and what the underground reservoir situation is, no individual or company can afford to pump oil indefinitely from a property at a daily loss. Among engineers and economists this feature

. . . a discussion of the various problems, difficulties and considerations encountered



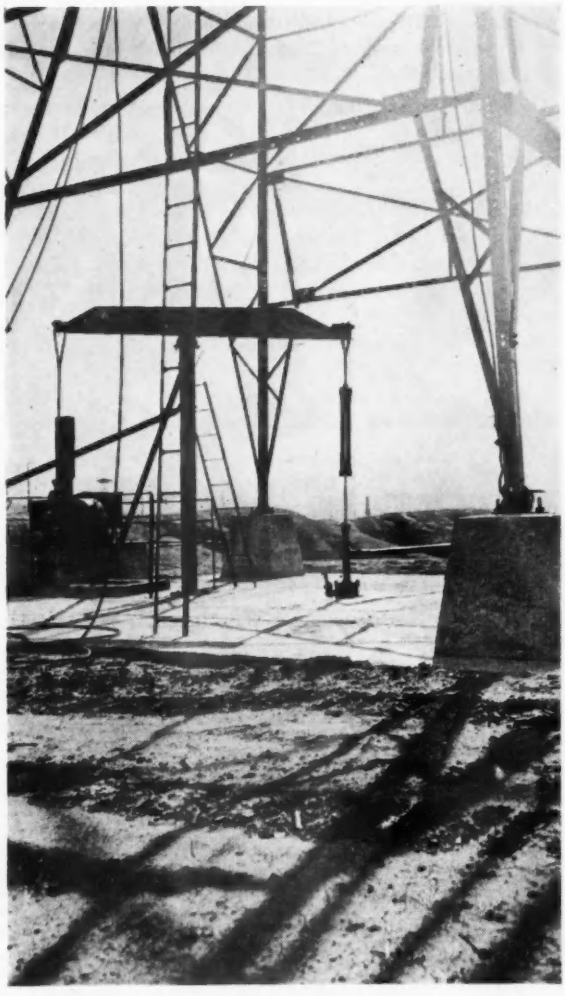
has caused considerable discussion during past years. Practical considerations govern and determine ultimately the course of action in developing and producing oil fields, irrespective of what a scientific study may presume to conclude. For instance, shutting in a watered field of small production may do it irreparable damage and reduce materially the ultimate yield of the pool, but no one can produce such a field for an indefinite period at a daily loss, no matter what one may think of damage resulting therefrom or the conservation of natural resources. Practical considerations govern. Again, in a field having a very highly corrosive water it would appear advisable to produce it continually in order to extract all the oil possible before the casing in the well becomes badly corroded and a serious attendant water situation develops due to water breaking into the wells. Practical considerations, however, in a period of over production may determine that, nevertheless, such a pool shall be shut in for years. Again, in a field known to have an active fault running through it, it would appear advisable to produce continuously in order to extract all the oil possible before the casing in the wells is sheared off, thus not only risking the loss of the wells completely due to the staggering of the hole but serious water invasion from such wells.

The solution to all this is, of course, that no new fields should be allowed to be brought in that would endanger the continuous operation of such above mentioned pools. This is the solution but not the answer. The answer is that no scheme has yet been devised that has permitted such an ideal arrangement in any industry.

All this has not been without some good features. A number of technical men have had to adjust their minds more closely to the profit viewpoint in their recommendations instead of giving as much weight as formerly to the engineering or scientific aspects. This is perhaps as it should be. At any event without profits no one can keep his job indefinitely, so it is just as well to see to it that some profit is obtained, if possible. In the days of high crude oil profits the principal stress was on production. Crude prices were sufficiently high that no one had to worry much about the profit, consequently, the main object was to maintain or increase production. Such conditions do not promote efficiency. Extravagant and foolish expenditures were made without much, if any, criticism. From the standpoint of a first class engineer it is just as well that conditions changed as he became more needed and could show to better advantage when greater efficiency was essential. Now it is not so much how much oil is produced but how much profit is made on the oil produced. The main point is to make a profit on what is produced, rather than to produce all the oil possible. This attitude is reflected in the field among the various properties by changes in operations in countless ways to reduce costs and achieve greater efficiency. Many changes were forced not by any academic considerations but by a cost sheet that showed the property in the red and unless vital changes were made another shut-in property, for the good of curtailment, would soon be listed. Field men accustomed to a certain standard scheme of operating, and hostile to any changes, often have adjusted their operations to a new basis when low crude prices have made it imperative to make these adjustments or otherwise be shut down, or have some other person in the organization come in and show them how to do it.

Properties opened up in the newer fields present the fewest problems. This is because they are ordinarily free from water trouble and also because their production per well is generally much higher than in the older fields. Naturally wells pumping from 100 to 500 barrels oil per day easily produced oil at a comfortable profit after all deductions for lifting cost, depreciation, taxes, etc. There is no need for pressing drastic changes in order to resume operations on a profitable basis. The shutting in of such properties was unquestionably due to the intention of keeping the oil in its natural underground reservoir rather than to permit it to come into competition with oil being produced for the market or adding to the surface accumulating storage. These wells, drilled under modern conditions with proper cementing of water strings and landing of oil strings, present few problems from a producing standpoint. No water problem is present due to cementing of water strings at the correct depth and proper completion depth. Also the casing has not been in the well sufficiently long to permit problems due to corroded water strings to develop. Intruding edge water trouble has not developed as the small drainage of oil from the reservoirs has not permitted such a development as yet. The surface pumping equipment and transportation facilities being of comparatively recent design require but slight changes. Motors, engines, etc., borrowed from the property for other work during the shut in must be returned or replaced. Duties of certain field men may be increased, thus, requiring fewer men to operate the property than formerly. Pumpers may be required to handle more wells than formerly. The property is still under curtailment and therefore produces its allotment by pumping only part of the wells full time, all the wells part time, or all the wells full time on slow motion. Fewer men are required, therefore, than under former normal operations as there is no pressing need to have a sufficient number of men on hand to work on a well as soon as it goes off production for any cause. If a well goes off production it can stand idle a few days or a few months if necessary without jeopardizing the production of the property allotment. Under such conditions fewer men are required and the time of the men employed is more fully utilized. There are not those periods of loafing or working at unnecessary tasks. Pump changes and cleaning out jobs can be taken care of as the men can get to them from other duties. Such operations are, of course, in decided contrast to former times when headquarters scanned the idle hour sheets on the wells and were insistent that the wells be kept on production with as little time off production as possible. Idle hour reports on wells are no longer important. No one cares how many idle hours there are. The main thing is to produce the allotment of the property with the fewest employees possible. As many or more men may be employed due to part time employment now extensively practiced. However, the man-hours of work paid for is a different thing.

Due to the manner of producing them the potential production of such properties is often difficult to figure. Past production records are helpful but supply only a part of the needed data. The potential production must be calculated as it influences directly the monthly allotment given to the property by the oil umpire. Normal full time operating methods are not in practice, except perhaps in the case of where all the wells are on slow motion when it is a question as to what the operator would do under more favorable conditions. Wells may produce less than normally expected due to a lack of cleaning out operations or pump changes. Wells may produce more than normally expected due to pumping part time and therefore being on a continual semi-flush basis. All these factors, as well as others, must be taken into account by the oil umpire in setting up a potential figure. In case of a disagreement a potential



Installation of pumping equipment on General Petroleum Corporation well in the Mount Poso Field, California.

test may be made under the rules and regulations of the oil umpire but even under this test the results may be in error as for establishing the true and correct potential.

Maintenance Work

The tendency with shut-in properties is generally to devote as little time to them as possible. Watchmen are, of course, employed to see to it that stealing or destroying of equipment is kept to a minimum. Little or nothing is done to keep the surface equipment in repair. Likewise nothing is done to maintain proper mechanical sub-surface conditions, except where findings denote them to be greatly needed. This is a natural state of affairs inasmuch as such shut-in properties are returning no revenue and any expenditures made for maintenance must be paid from other sources of revenue. Any expenditures made necessarily appear in the "red" against the property and under any circumstances cannot make a favorable showing as far as maintaining the company goes. Again, it is impossible to determine when a shut-in property will be opened. Consequently, any expenditures made for repairs, renewals, and maintenance may be entirely wasted due to the fact that it may be necessary to make the same expenditures all over again years later when the property is opened. Through years of over production discussion is had from time to time as to whether this or that property of small production will ever be produced profitably again and if so when. Also in the case of shut in leased properties the question arises as to whether it is advisable to continue to pay taxes and some maintenance costs and perhaps some advance royalties year after year or to quit-claim the land back to the land owner. During depression periods the company personnel is cut to a minimum and all employees are used at the most useful occupations to maintain the company in a solvent condition. Under these conditions it is difficult to spare men and equipment for work on shut-in properties.

Fluid Levels

Some check can be made of underground conditions by taking fluid levels from time to time. During years of over production operators have tried to some degree to check on underground conditions in this way. Work of this nature varied as to the importance various operators placed on it, and the conditions prevailing on or adjacent to their shut-in properties. In some cases an attempt was made to check the fluid level of each and every well every month or two, whereas, in other cases only a few wells were checked in this regard every year or so.

Although pumping operations may stop and no oil is raised to the surface to be cleaned and shipped, that does not mean necessarily that underground conditions also revert to a static condition. Changes continue to take place underground. Movements of gas and oil take place, depending on producing operations at other points on the structure. Water invasion continues to take place, depending on edgewater forcing its way up structure or continued filtration into the oil measures due to faulty top or bottom water shutoffs. The extent of such water invasion will, of course, depend upon the head and volume of the water. Earthquakes or minor movements on a fault within the field may damage or shear off the casing. This condition was found to exist in the Buena Vista Hills in such cases new oil strings must be landed, or where the damage is above the oil zone, the water string must be overhauled or the well abandoned. Corrosive water continues to damage the casing and at any time may break through the casing and commence invading the oil zone. Corrosive water already in the oil zone to a minor extent may damage the oil string or penetrate through the tubing, permitting the lower end to drop to the bottom of the well, which ordinarily necessitates a tedious job to extract the twisted and bent tubing.

Where fluid levels have been taken the results are checked against past records of this nature. In watered areas important data are obtained as to the rise in the water level due to water invasion, and estimates can be made as to how this will affect future producing operations. Unusually high fluid levels of water content are caused by water breaking in through a corroded water string. Where such cases are found, packers generally are set on the casing below the point of entry in order to prevent the water from damaging the productive capacity of adjacent wells. The spread of water due to faulty wells in the area also can be checked sometimes in this way, although, often times the high oil level reached in wells in some areas shortly after shutting them in prevents obtaining a true picture of the situation. The producing zone around the well may have become somewhat water logged but the high oil level remains in the well and gives a misleading picture of the true condition. Only by pumping and removing the oil accumulated in the casing does the time situation disclose itself. However, in areas in which

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considerable production has been obtained and having a low head of oil in the hole even when shut in, the spread of water is easily checked to adjacent wells, especially when the water is under a high head. This is true especially of certain parts of the Coalinga field.

At the time of shutting in properties and wells the tubing, rods and pumps were usually left in each well so that pumping operations could be resumed almost at a moment's notice. This was done because no one knew how long the shut in would last, and if it were to be of short duration it would be the best policy to be ready to start pumping at once. Subsequently, due to corrosion of tubing, the tubing strings were pulled from the wells by some companies, notably at Coalinga. Also, where it was desired to check on fluid levels it was necessary to pull the rods out of the tubing strings.

Putting Wells on Production—Surface Equipment

The increased use of steel and concrete during recent years for derricks and foundations, as well as for other lease equipment, has aided materially in reducing repair costs. Most of such construction has not been in use very many years but the service already given and present conditions indicate low repair charges.

Old shut-in properties have had therefore the greatest amount of repair work on resuming operations. Derrick foundation timbers have rotted out and must be replaced. Recent changes in the state safety regulations have also made necessary such work as bolting the ladders, extending the ladders over crown block, guard rails, etc. On wells pumped from central powers many wooden jack posts have rotted in the ground and fallen down. These must be replaced. Often such replacements are made by using second-hand tubing in place of wood. It is felt that the tubing will give much longer service and besides is much less costly than using new lumber. It is customary to set jack posts made of tubing from three to five feet in the ground. Some operators pour a core of concrete around the tubing when setting them, which makes a much more substantial layout, which is not likely to loosen when the ground is wet and the added cost for this precaution is slight. Also there is the added feature that the concrete coating around the tubing in the ground will aid in preventing corrosion.

Motors and engines must be inspected, cleaned up, and worked over to see that they are in proper condition. Belts stored away must be returned to power houses and placed back on the pulleys.

Considerable other miscellaneous repair work is necessary. Broken down oil flumes must be repaired and put back up in good repair. Pipe lines of the gathering system may have developed leaks due to corrosion and these must be dug up and replaced or repaired. Overflow sumps may have washed out at places and must be built up again. Bridges over small washes are found rotted badly and must be replaced before trucks can again be sent over them. Field tanks must be inspected and overhauled.

Putting Wells on Production—Subsurface Conditions

On resuming pumping operations many variable situations are found. Many wells that have stood idle with pumps and rods in them resume pumping immediately and continue without any difficulties whatever showing up. Others are found with pumps sanded up and these must be washed out, or pulled and the pump replaced. Oil strings are sometimes sanded up and, due to holding back production, clean out crews must be put on the wells and holes cleaned out. These operations sometimes disclose collapsed or parted oil strings that were hitherto unknown. In aggra-

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vated cases the holes may have to be cleaned out frequently, as often as once weekly for a month or so before sand discontinues coming into the well. However, wells in which oil strings have small perforations—80 to 160 mesh—have very little of this cleaning out work necessary. The great majority of wells drilled within the past 10 years have the smaller perforations. Some pumps have been found corroded and pitted due to the action of corrosive waters.

Very old wells, as well as those only a few years old, in areas showing little or no water generally produce at an abnormally high rate, that is, much better than their normal or potential rate. This is, of course, due to the oil following the course of least resistance and migrating through the depleted sands to the immediate vicinity of the oil strings during the cessation of pumping operations. Such wells often produce at 100 percent and sometimes 200 to 300 percent above their normal rate, declining during the course of several months to their normal production. The monthly allotment allowed by the oil umpire to such wells and properties is based on their normal production rate although under the regulations of the oil umpire, they could establish a much higher potential than that of the normal. To date operators in general have accepted this basis for allotment, apparently taking the position that making demands on this temporary flush condition would not be fair practice as well as causing considerable confusion in the umpire's office and dissatisfaction to operators.

Wells in moderately watered areas, that is, producing 10 to 100 barrels of water per day per well before shut in, in general have shown a satisfactory normal or near normal production on resuming pumping. Such wells may show some increase in water production, in some cases as much as 100 to 200 percent, but their oil production is usually about normal, especially where pumping is speeded up to take care of the increased amount of fluid. The excess of water over that normally produced ordinarily shows a steady decrease until within the course of a few months the well is back to about its former water production. Apparently, the pressure existing in the oil zone is sufficiently great to hold in check the infiltration of water into sand, so that after a certain amount of water invasion the situation is held in check somewhat. This is the only explanation that can be made for such wells not being very badly flooded and is a logical deduction. Exceptions to the above are noted where wells are located adjacent to badly watered areas or where water breaks into wells due to corroded water strings. The monthly allotment allowed by the oil umpire to such wells and properties is based on their normal production rate and this is the only equitable way to hande such situations until subsequent developments demonstrate the property potential to be in error due to changed conditions.

Wells in badly watered areas, that is, producing 300 barrels and over of water per day per well before shut in, in general have shown a very unsatisfactory production situation on resuming pumping. The flooded conditions of the oil zone in the first place and the apparent free access of water to the oil zone, in addition to the low pressure of the gas and oil, have tended to permit considerable additional flooding after shutting in. This has tended to raise the water level in the wells, hold the oil in check and away from the oil strings, thus preventing a normal production of oil. Wells of this nature ordinarily take a number of months to regain their former normal production and the opening up of such wells has been kept to a minimum. Such opening up and testing that has been done shows the oil production to be very much below normal. Generally the effect on adjacent properties of such shut in watered properties has been disasterous, as these adjacent wells have an increase of water to handle due to migration of the

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water. Occasionally, however, properties located a sufficient distance from badly watered areas or close to areas only moderately watered have an increase in oil production due to water spreading out and exerting a pressure tending to drive the oil ahead to such nearby areas. Eventually, however, if this condition prevails long enough, the water has finally appeared behind this water drive and the oil production seriously reduced.

Overhaul Work and Changes in Operation

Wells placed on production are studied and observed with considerable interest, especially where they have been shut in for a long period, to determine what underground changes have taken place. At Coalinga, Lost Hills and other places watered conditions have been found present in wells due to water corroding through water strings during its shut in period. Where a number of wells are affected it is due generally to one becoming defective and water spreading from it to adjacent producers. Ordinarily a study of the fluid levels and water analysis will locate the offending well. An exceedingly high water level is practically definite proof and makes the solution easy. Sometimes, also, the water at first has broken in above the fluid and spurted for sometime against the tubing string, thus making a mark on the tubing that gives a very definite clue as to the point of entry. By setting packers on casing below the point of entry the water is prevented from coming into the wells. This is the most economical way to perform the overhaul job and is most always taken care of in this manner. Where the water string is crooked or collapsed it is sometimes impossible to get the packer down to the necessary point. The wells found in such a condition ordinarily have not had a production that warranted an extensive overhaul job such as sidetracking the old water string and cementing a new one. The usual procedure therefore has been to officially abandon such wells or place a temporary cement plug at a point below the hole in the water string, thus delaying the outlay for an abandonment job to some future date. In a few cases where the production of the well warranted the more costly sidetracking job mentioned above, this has been done. As the water invasion has taken place for a long period a period of many months may elapse before the excess water is eliminated and the well and small area in the vicinity restored to its former producing condition.

The operation of wells must be changed where water has migrated in order to lift the excess water and obtain the oil. For this purpose the speed and stroke are increased to handle the increase of fluid. In the course of a few months due to the drainage of fluid from the oil zone the water production on some wells has shown a decided reduction so that pumping could again be slowed up.

These changes in underground conditions necessitate considerable attention as to the proper depth to place the pump. Former pump depths are sometimes found very unsatisfactory. Pumps are raised in order to prevent sanding up and later lowered if conditions tend back to their former status. Pumps are lowered to insure obtaining more fluid in cases where there has been an increase of water.

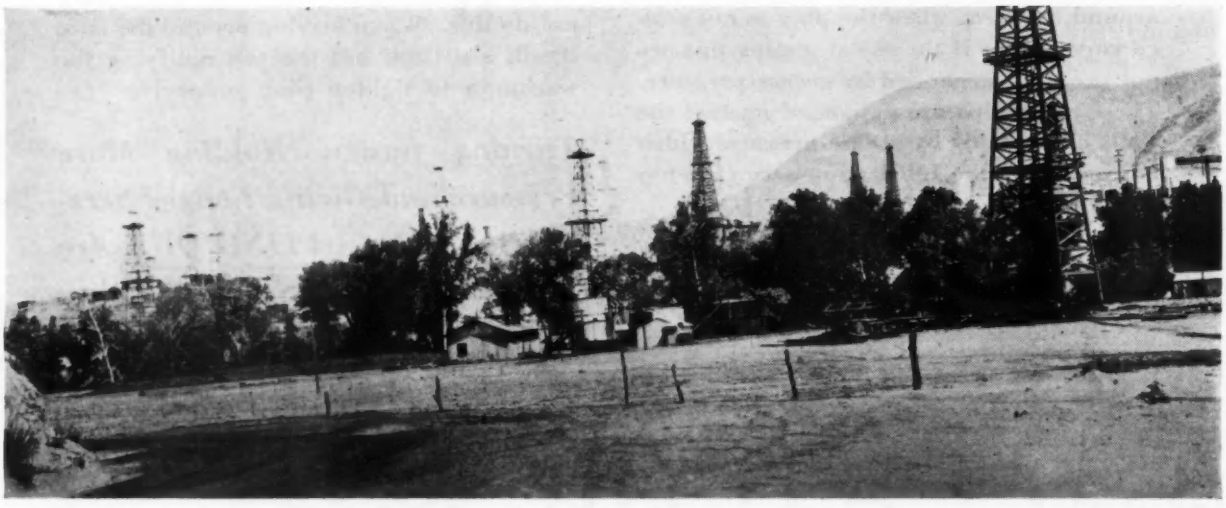
Conclusion

A survey of the situation in California at this time shows some 2,011 wells are now producing which were shut in this time last year. The potential of the opened up producers is about 47,257 barrels of oil per day and their daily allotment about 40,000 barrels daily. There remains some 3,031 wells still shut in.

The cost to the oil companies during the past 10 years for holding title to shut in properties must reach a colossal figure. Actual cost figures that could be added up readily would be those for taxes, repairs (especially on resuming production), maintenance, insurance, and perhaps, some bonus payments to land owners. Any one familiar with the tax rates on oil properties can appreciate to what a large sum these payments would total on shut in production year after year, and this at a time when absolutely no revenue was being obtained.

Losses due to irreparable damage to the underground reserves, thereby diminishing the ultimate production are impossible to figure accurately. Such losses were caused by: (1) the loss of gas and gas pressure due to the continued operation of other properties on the structure; (2) the drainage of oil to adjacent properties; (3) water invasion damage to oil measures and to subsurface casing tending to curtail materially the remaining producing years of a well.

Of course, all fields and all wells reach their economic limit and must therefore be abandoned eventually. This is something to expect and something to look forward to. California fields, being mostly relatively young in years, have not faced much of this, except in isolated instances.



Coffee Canyon, an extension of Round Mountain, California. Poso Creek, a seasonal stream goes through the center of the field which accounts for the vegetation seen in the picture It is a shallow field of 1500-foot depth of pumping wells.

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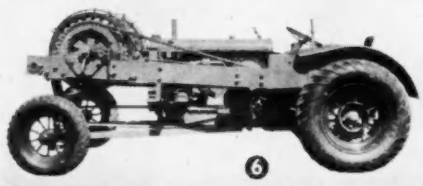

1—Picture of actual race between A-C tractor and motorcycle. 2—Rocky hills no obstacle to A-C rubber-tired winch tractors. 3—Finish of race between tractor and modern truck. 4—Mountain country in which A-C winch tractor is now operating. 5—106° in the shade on a bald prairie when this was taken. Notice no hot or smoking brakes. 6—This is the unit that can almost "go anywhere you can go."

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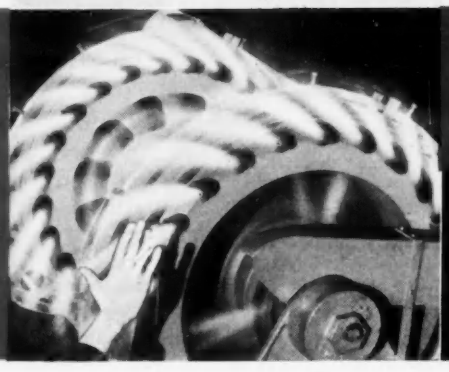


FRED E. Cooper
OIL FIELD REPRESENTATIVE AND DEVELOPER OF OIL FIELD MACHINERY
211 S. LANSING TULSA, OKLA.

A Planned

BRAD MILLS

Associate Editor

WHEN drilling to 10,000 feet and below a most important factor is careful predetermining of a drilling program, the outstanding feature of which is the use of larger diameter casing and longer strings, as well as selection of machinery, crews, etc. With larger size holes at greater depths drilling would be much easier and safer.

Since practically all tests that have been drilled to 10,000 feet have not been intended to go this deep when drilling was commenced, is illustrative that with proper preparations geological formations may be tested at depths of 13,000 feet and more, and without encountering undue mechanical troubles.

From the accompanying article it will be seen that companies who have drilled to 10,000 feet or more are confident that they can repeat their successes with greater ease in the future, and that they are of the opinion that careful pre-planning would eliminate most of the hazards.

With drilling of this depth now assured, the industry is confronted with another problem. Thus far, through some peculiar condition, no well below 10,000 feet has been able to test the showings encountered. What causes this?

Is it the extreme temperatures, often around 300° F., which bakes the drilling fluid, thereby forming a strong lining that seals off the oil? It is possible that this is the cause. If so, how is it to be overcome?

WHAT factor is most important in drilling to 10,000 feet?

Four California companies that have successfully reached such depth have been asked to answer this question, and in doing so have revealed what they consider are major requirements in drilling to a five-figure level. Major factors, according to the survey, include the human element, proper preparation before drilling is started, standardization and improvement that has taken place in equipment in general during the past five years, metallurgy, proper financial support, and a heavy, balanced drilling outfit.

Secondary factors that overlap somewhat onto the major factors play heavy roles in drilling to 10,000 feet, according to each of the four operators. Some of these were use of correct drilling fluid below 9000 feet, rapid circulation, weight control, self confidence, superior drill pipe, coached drilling crews, slush pumps with high safety factor, and proper prime movers.

These four companies drilled in widely separated sections of the state, and under different conditions, yet not a single test was started with a depth record as the objective. The fact that each well had a modest beginning was important, since it proved a 10,000-foot depth possible where a much shallower final depth had been expected. Three of the four companies considered the fact that such tests "happened," rather than were planned, as an important development.

Acknowledging the usual honor and publicity accompanying new depth records, scientific value of the achievement is much more important. Equipment and men who drill deeper than man has drilled before demonstrate the qualities the petroleum industry is seeking, and advance drilling technique to a higher plane.

When a depth record is announced, the practical man still wants to know what he wanted to know under similar conditions 15 years ago: methods and type equipment used; greatest difficulties encountered; factors playing most important roles; chances for drilling to still greater depths, and numerous additional angles.

The first well drilled one mile attracted as much attention as the first to reach two miles. The first was as important as the second. The petroleum engineer, equipment manufacturer, field superintendent, chemist or executive first considers the achievement from his own standpoint, but a complete story never fails to carry sufficient interest to warrant a study of the feat in all its phases.

Drilling to 10,000 feet is not entirely unlike making a 10,000-mile trip in an automobile, according to an official of a California company that has held the depth record. If all the vital parts of the automobile hold out and function properly, and if the driver does his part, the trip will be made safely. Action of the driver is not less important than that of the automobile; proving that the human element in any undertaking may be as important as the equipment used.

Four Deep Wells

California wells drilled to 10,000 feet are General Petroleum Corporation's Berry 1 at Belridge, the present record holder that now is testing at 11,377 feet; North Kettleman Oil & Gas Company's Lillis-Welsh 1, Kettleman Hills flank test that was drilled to 10,944 feet and is now redrilling below 10,000 feet; Western Gulf Oil Company's Bradley 1, Santa Maria wildcat abandoned at 10,296 feet; and Chanslor-Canfield Midway Oil Company's Hobson A-2, semi-discovery well in the San Miguelito field, which was drilled to 10,030 feet in 1931 as the first 10,000-foot well on record. Each of these wells held either the world or United States record at the time maximum depths were attained. The deepest two are still active.

Standardization of Equipment

General Petroleum Corporation places standardization of equipment at the head of factors that have made drilling to 11,377 feet possible in Berry 1. This company was one of the first supporters of the standardization program suggested by the American Petroleum Institute. Executives of the company think that standardization has forced an improvement in equipment that gives the operator a superior product. This superiority is enough to give a margin of safety in drilling to great depths.

General Petroleum Corporation officials favor giving the metallurgist, chemist and engineer more credit than he has received. Improvement in equipment has been largely in the hands of these men, it was pointed out, and standardization could not have been successful without their aid.

Before standardization became effective, the equipment manufacturer gave considerable time to striving for superiority of one size over another, and in doing so might have neglected improvement in quality, the production executives stated. When all manufacturers were placed on a uniform size program, the chief incentive was to improve drilling equipment, it was shown. American Petroleum In-

Program *Among Others Is Important* *Factor* In Deep Drilling

stitute and leading equipment manufacturers are at least responsible indirectly for successful drilling of 11,000-foot wells, according to General Petroleum Corporation.

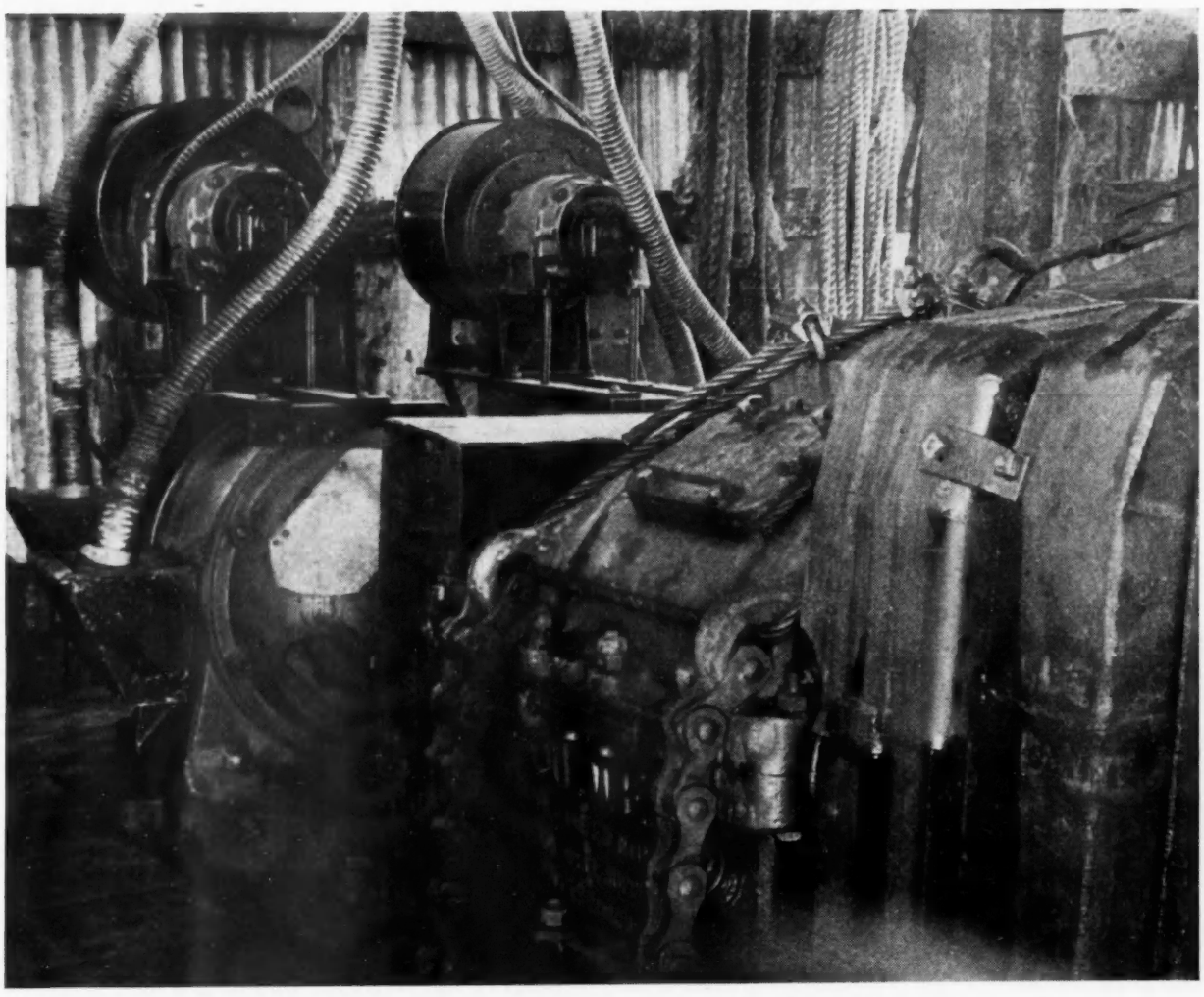
Berry 1, the present record holder, was not started as an extremely deep test. A 122-foot derrick and medium heavy rotary equipment were used.

Preparation ranks high with the company as a factor in drilling to excessive depths. Derrick and foundation for Berry 1 were built in the summer of 1930. The company at the time was experimenting with structural steel derrick foundations, and fortunately constructed what at that time was perhaps the strongest foundation ever designed. This foundation, originally used to drill to 8260 feet, proved the value of proper preparation, and caused the company to nominate it as a primary factor in 10,000-foot drilling.

Preparation and Confidence

Careful preparation and self-confidence are the leading factors in drilling to 10,000 feet, according to Ed McAdams, president of North Kettleman Oil & Gas Company, which until recently held the depth record at 10,944 feet with Lillis-Welsh 1, North Dome flank test at Kettleman Hills. He believes there is no substitute for either, but lists several other factors he considers important.

McAdams believes that he can drill 10 wells, out of 10 started, to 10,000 feet under ordinary circumstances. He



Rear view of differential drive, motors and blowers used in drilling General Petroleum Corporation's Berry 1 to a record depth of 11,377 feet.

regards the mental hazard as a distinct factor in many failures. This usually crops out in the form of fear or nervousness, and may cause serious mechanical trouble, it was pointed out. He thinks it possible to drill to 10,000 feet with equipment in use 10 years ago.

Regular conferences with the drilling crews to increase interest and responsibility are recommended by McAdams. Drillers were schooled to avoid trouble, and a plan of attack was mapped out ahead of both trouble and necessary operations. Original planning must be followed by subsequent planning, if trouble is to be avoided. Indecision must not be tolerated.

Use of special drill pipe and special drilling fluid are regarded as essential by North Kettleman Oil & Gas Company. The drilling superintendent contends that proper drilling fluid is more than 60 percent of the battle below 9000 feet.

Human Element Strongest

The company drills below 10,000 feet as it would drill at 5000 feet, except that factors involved at 10,000 feet are acknowledged and respected.

In drilling Bradley 1, Santa Maria wildcat, to 10,296 feet with light equipment, Western Gulf Oil Company was able to reach several conclusions. Such a depth with equipment not originally intended or recommended for extremely deep drilling proved that something more than iron and wood account for records.

The company believes the human element stronger than any other factor in drilling to a depth of 10,000 feet. Equipment may be a close second, but the manner in which the drilling crews coaxed light equipment to make almost twice the hole expected was impressive.

Drillers on this well became so interested that they took every move to heart. They forced most of the equipment to exceed its rating, but were able to make hole rapidly below 9000 feet. The equipment should receive full credit, the company states, but it was human ingenuity that caused it to perform so satisfactorily.

Use of 2½-inch drill pipe, 122-foot derrick, 6¾ x 14 electric pumps and other light equipment in drilling Bradley 1 to 10,296 feet, was a tribute to both men and equipment, but the company holds to the human element as the stronger. The crews were as interested as the company in making hole below 9000 feet.

Chanslor-Canfield Midway Oil Company places intelligent drilling crews and supervision first in a number of factors responsible for drilling to 10,000 feet. Proper preparation follows as a close second, however. This company's Hobson A-2, Rincon (San Miguelito) wildcat, was the first well to reach a depth of 10,000 feet. Maximum depth was reached in May, 1931. The well was drilled to 10,030 feet, but was plugged back to produce in an upper zone.

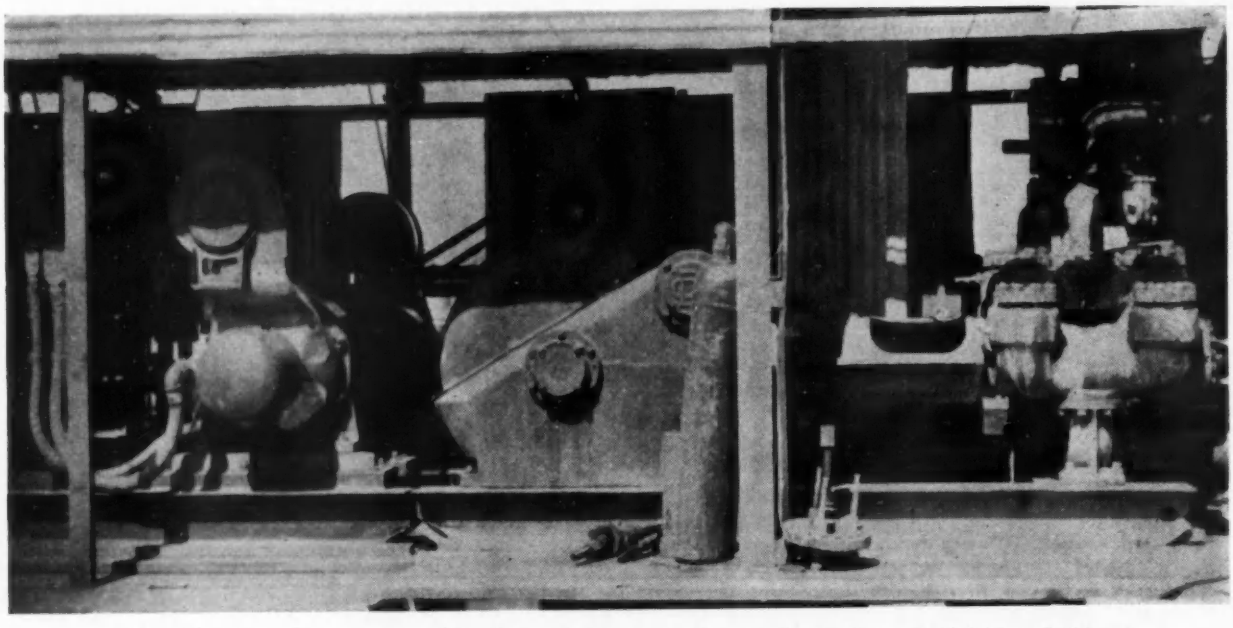
Hobson A-2 was not started as a deep test, and the company observed during drilling below 9000 feet that preparation would have simplified matters. Heavy equipment was installed at 7479 feet, following a fire. Position of the company was cramped, however, since the hole had been started with 7600 feet as the probable maximum. The casing program kept a comparatively shallow depth in mind, and cementing of 5¾-inch casing above 7500 feet proved a distinct handicap during drilling below 8000 feet. The casing program forced use of 2⅞-inch drill pipe below 8000 feet.

Chanslor-Canfield Midway Oil Company carefully checked the results of drilling to a record depth. The fact that the hole by chance developed into a 10,000-foot well was considered. The company concluded that with proper and more elaborate preparation, use of larger casing, and employment of such drilling crews as were used, drilling to 10,000 feet under ordinary conditions should be an easy task.

Hobson A-2 has been the only 10,000-foot California well to produce oil, although it was plugged back and completed on the compressor above 8000 feet. It is still on production.

California companies do not agree on the best method of drilling to 10,000 feet, but all operators favor planned tests over the "accidental" type.

Depths of 13,000 feet, or greater, will be reached in a few years, companies that have drilled to 10,000 feet believe. And one company thinks ultimate testing of formations around 20,000 feet a possibility.



Side view of mud pump assembly, General Petroleum Corporation's Berry 1, Belridge, California

Peru's *Enormous* Prospective Area Enhances Its Oil Reserves

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Chief of the Petroleum Division, Department of Public Works, Agriculture and Commerce, Lima, Peru

and

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THE existence of petroleum in Peru has been known from times prior to the Empire of the Incas. Primitive inhabitants of the country used the heavy hydrocarbons that seeped to the surface for waterproofing vessels of cooked clay they manufactured. It was used also as mortar in construction and to preserve mummies.

During the colonial epoch deposits near the coast were exploited, and tar extracted therefrom was used by ships that navigated the southern part of the Pacific.

The modern oil industry in Peru dates from 1865, six years after Colonel Drake brought in the first well in Titusville (U. S. A.) The first well in Peru was in Zorritos Survey, where at a depth of 146 feet it made 60 barrels per day.

Since that time, the petroleum industry in Peru has been developed slowly but surely, as can be seen by the enclosed graph, yielding a production of 13,257,318 barrels of crude oil in 1933, and 1,003,216 barrels of natural gasoline, thus taking the ninth place in world production.

Petroleum Deposits in Peru

Peru, which was the first oil producing country in South America, is one of the best endowed countries of this continent with respect to its richness in oil. Petroleum deposits in Peru are found equally on both sides of the Andes range, as well as in the zone within the Andes range.

Deposits of the northwestern region were the first to be exploited and this territory still continues to be exploited actively. These fields are situated in the coastal zone and are bounded on the north by Ecuador, and on the south by the La Leche River in the District of Lambayeque, giving it an approximate longitude of 300 miles, and a variable latitude between the sea coast and the counterforts of the Andes of from 20 to 60 miles.

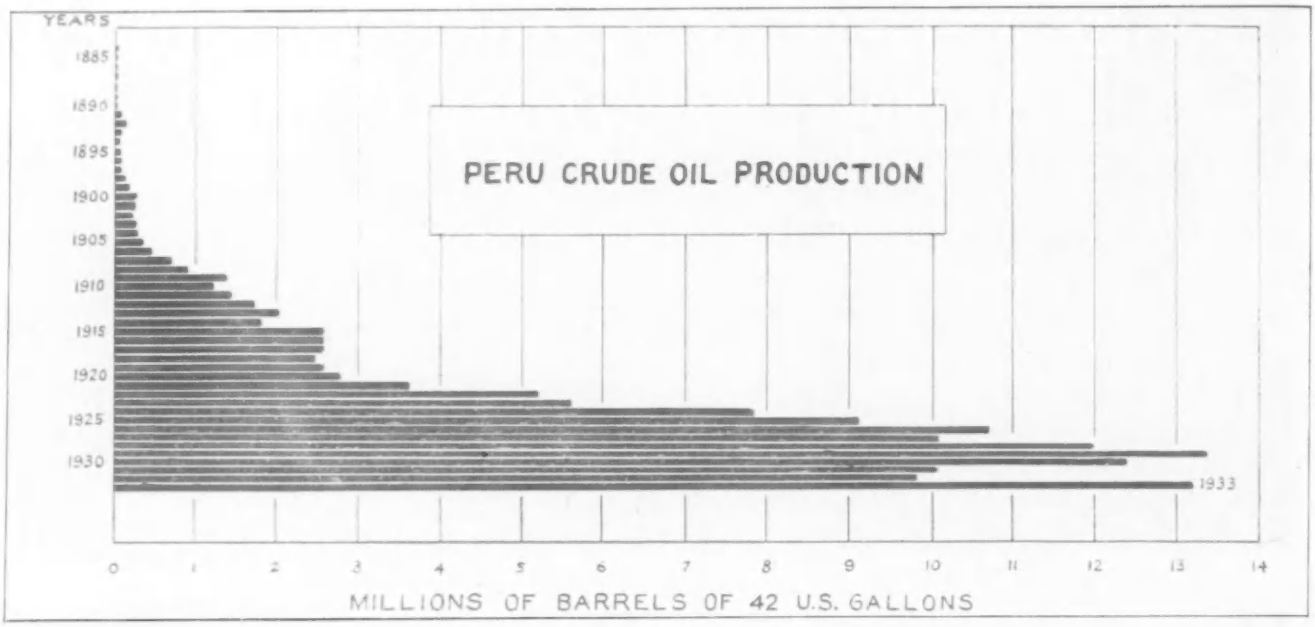
In the region situated within the Andes range proven oil lands have been found to exist in the Province of Parinacochas (Chumpi), Espinar (Pallpata), and Andahuaylas; but on account of lack of transportation facilities it has been impossible up to this time to do any exploitation work.

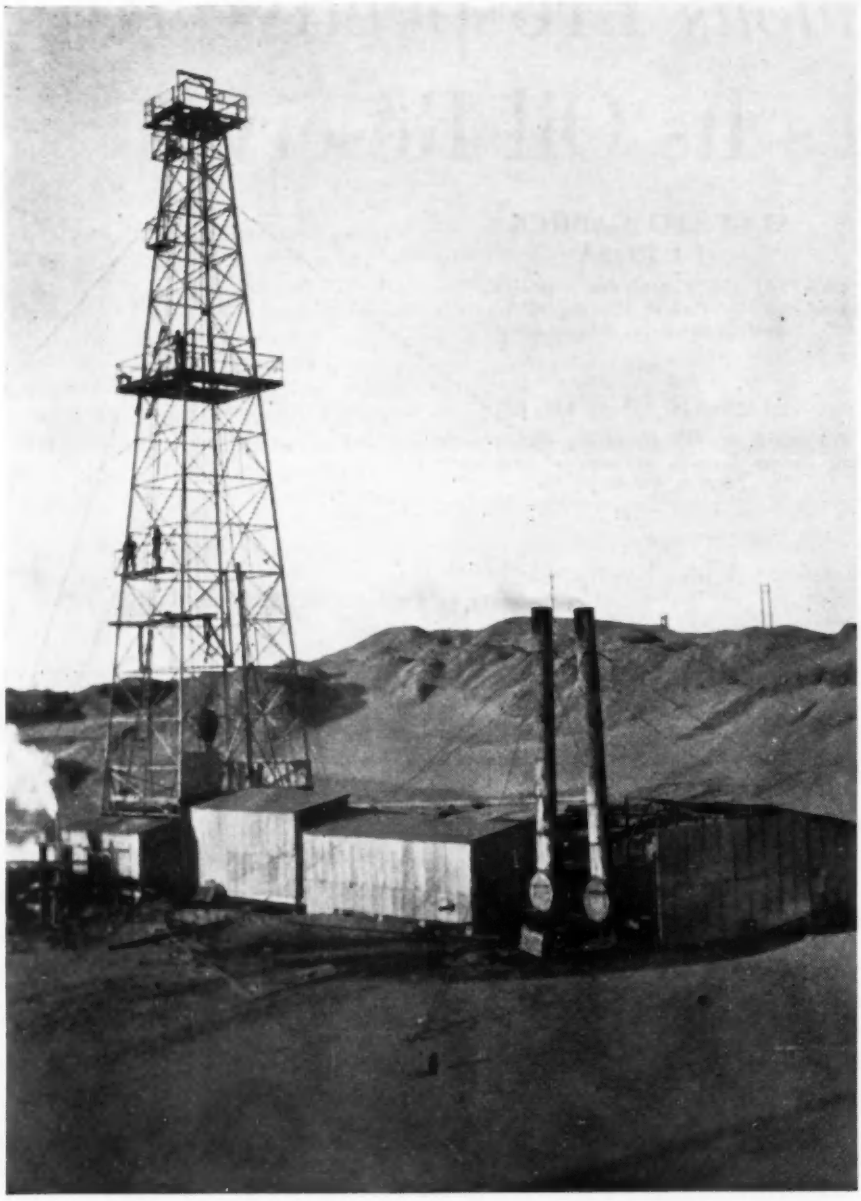
In the district bordering Titicaca Lake, within the Provinces of Huancane and Azangaro, is a petroleum zone of 500 square miles. During 1906 and 1908 Titicaca Oil Company drilled 10 wells and encountered liquid oil filtrations in five at 120 and 390 feet, and gas at 700 and 800 feet. During 1917 to 1919 operations were resumed by Sociedad de Petroleos Espana, this company having acquired the properties from the company above mentioned; during this time five wells were drilled and three of them came in as producers. The crudes in this region have a specific gravity of from 30.6 to 37.8 degrees Baume. At present, there only remains in this zone small concessions with a total area of 593 acres, the remaining lands form a part of the reserved zone belonging to the state.

Selden Breck Concession

In the western region of Peru are large zones recognized as oil bearing, but there still exist enormous areas that have not been exploited on account of difficulties encountered in making geological surveys of the lands, which are covered by dense forests, but there is not the least doubt that on the eastern side of the Peruvian Andes is to be found a large oil pool. Standard Oil Company of Peru, a subsidiary of Standard Oil Company of New Jersey, carried out extensive exploitations and geological surveys of the region from 1923 to 1930. The Amazon River will be an excellent means for the transportation of oil when this region is exploited.

The only concession in force at the present time in this zone consists of 50,000 acres belonging to Selden Breck Con-





A rotary drilling rig at Negritos, Peru, making one of the deepest holes in the field—6,000 feet.

struction Company, incorporated under the laws of the State of Missouri (U. S. A.), said land being situated on both sides of the Pachites River, which is navigable and flows into the Ucayali River. This latter river is a tributary to the Amazon.

Extensive zones have been reserved in various petroleum regions of the Peruvian territory for developing purposes of the state exclusively. The government has recently ordered geological and geophysical surveys of the most promising zones in order to begin drilling operations in a short time.

Summing up, the prospects of the petroleum industry in Peru are brilliant and besides the proven fields which are already in operation, there exist vast zones very promising for future developments.

Exploitation of the oil fields in the northern region of Peru are controlled by three companies, and we are giving limited information regarding their activities.

Northern Region

Faustino G. Piaggio & Sons own the oil field known as Zorritos, situated 18.5 miles southwest of the town of Tumbes. This property consists of 7315 acres, but the tract where the oil wells are being brought in consists of only 395 acres. Piaggio interests have drilled 380 wells with a footage of 400,000 feet. The wells are from 600 to 3000 feet apart. The total yield from these wells has been 2,-

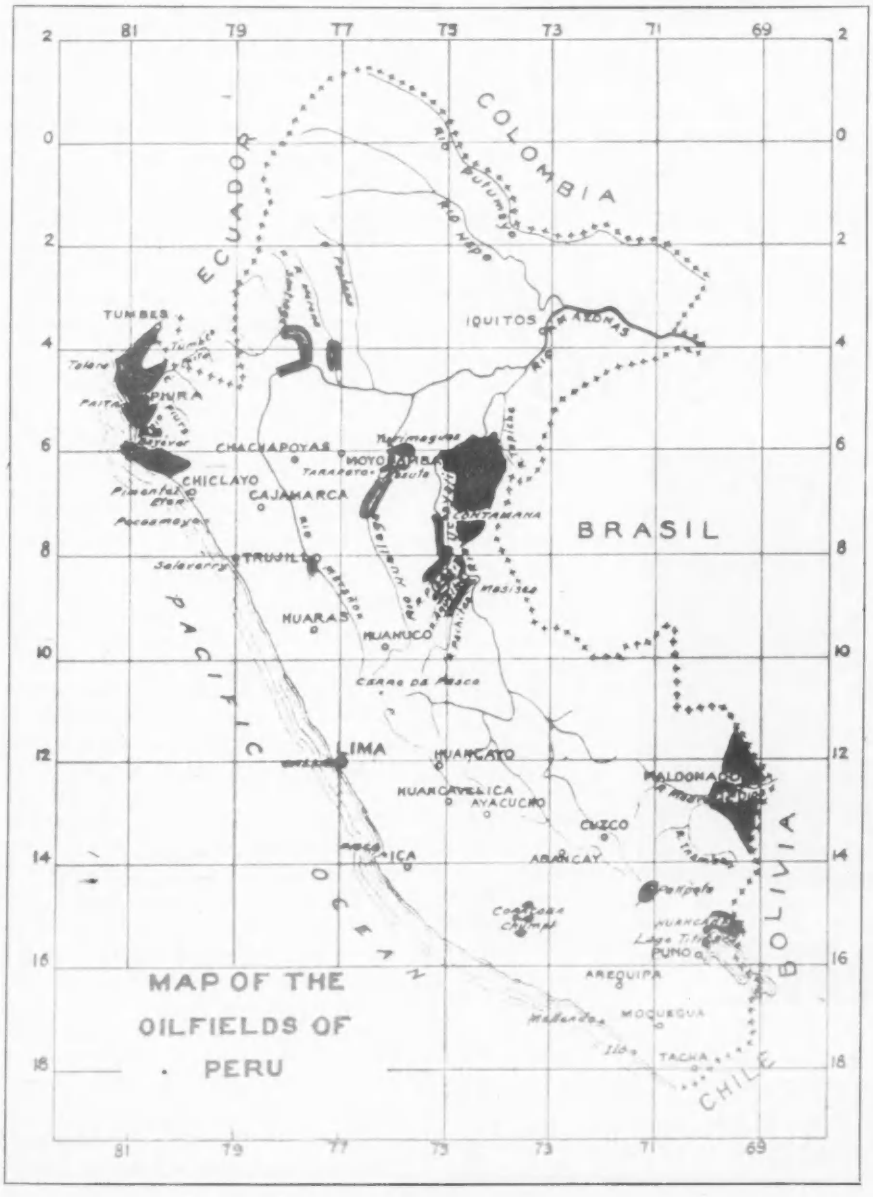
927,500 barrels. The yield from 40 wells in 1933 was 57,256 barrels.

Rotary drilling rigs are used for drilling, and are operated by steam or gas engines. Pumping stations at various wells extract the oil. The company has storage tanks with a capacity of 50,000 barrels. Piaggio interests have a refinery with a capacity of 1000 barrels, a small can factory and a wharf, and place exclusively on the local market gasoline, kerosene and fuel oil. The organization has a small oil tanker and two small ships for the distribution of the products put up in cans. It employs 190 persons.

La Compania Petrolera Lobitos is developing fields known as Lobitos, Restin, Cabo Blanco and El Alto. Lobitos field is 15 miles north of Talara, and the fields of Restin, Cabo Blanco and El Alto are 12 miles further north.

Operations in the Lobitos zone were begun in 1901. The first oil producing

Producing wells along the sea shore at Zorritos, Peru.



well was in 1905, which marked the beginning of the commercial oil production by this company. In 1911 it began the development of Restin field and in 1920 it began drilling operations on the heights of Cabo Blanco, on the plateau of Mancora.

The property belonging to Petrolera Lobitos comprises an area of 141,140 acres, but the tracts where the wells are being drilled consist of 37,560 acres. There have been drilled up to the present time 827 wells in the different fields with a footage of 1,891,080 feet with a total yield of 932,169,400 barrels of crude. Last year 580 wells yielded 1,994,700 barrels.

Among the oil fields of South America, Lobitos is outstanding for having deep wells, many having reached a depth of 6000 feet, and wells 3000 feet deep are more or less common.

Petrolera Lobitos owns 35 drilling rigs, which are operated by steam or electricity from a powerful generating electric plant that furnishes power for the central pumping stations, factories, and for lighting purposes. It has storage tanks with a capacity of 835,000 barrels, and owns modern warehouses with a complete assortment of drilling tools and materials.

The company relies on the facilities of a pipe line to convey the oil to shipping points. Powerful pumps are installed at Lobitos and Cabo Blanco, where the company owns wharfs for unloading materials. The fields are traversed by an extensive network of highways for automobiles and tractor traffic, and a rail-

road 25 miles long connects the fields of Lobitos with those of Alto.

La Compania Petrolera Lobitos does not own a refinery in Peru. All its production is exported to the markets of Canada, England and Argentina. However, it owns a natural gasoline plant which produced last year 66,030 barrels of gasoline. Production of this plant is pumped through a two-inch pipe line 12 miles long to the refinery at Talara, owned by International Petroleum Company. The surplus gas from this plant is used in some of the oil well sectors for pumping purposes adopting the gas-lift method. This company employs 1185 men.

International Petroleum Company, Ltd.

Drilling operations of International Petroleum Company, Ltd., are being carried out in the concession known as Brea y Parinas, with an area of 411,310 acres, including the oil fields of Negritos, Lagunitas, La Brea, Lomitas, Verdun, Jabonillal, San Pedro, etc. It also owns a refinery at Talara on the bay by the same name, situated 40 miles north of Paita.

Primitive operations within the boundaries of this concession date from the year 1870. In 1888, W. H. Tweddle acquired the property and associated himself with the English capitalist, W. Kesweck, and organized The London and Pacific Petroleum Company, which continued the drilling of wells in the District of Negritos with great success until 1914, when International Petroleum Company was organized. This latter company is continuing drilling operations on such a large scale that it is known as the most important oil company on the southern coast of the Pacific.

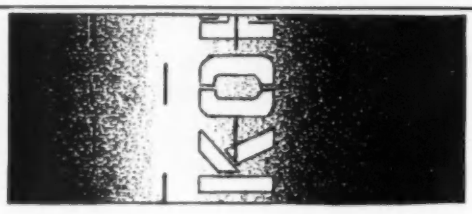
At the end of 1933 there were a total of 2838 wells in the Brea and Parinas fields including producers and abandoned wells within an area of not over 12,850 acres, which scarcely represents three percent of the area reserved for exploitation purposes. The accumulated footage of these wells is 4,506,580 feet. There are 1808 producing wells which within the last year yielded 11,205,362 barrels of crude. Previous production has been greater, but the company decided to shut down temporarily various flush oil sectors on account of the depression experienced by the oil industry.

Since 1890, when the oil fields of Brea and Parinas began to be exploited in paying quantities, there have been extracted up to the present time around 119,358,520 barrels.

For carrying on drilling operations, International Petroleum Company has 50 rigs of the standard cable tools system, using steam. The boilers burn fuel oil or natural gas. Some gas engines of portable type are used. Lately they are using rigs of rotary type in some sectors where the gas pressure is excessive (850 pounds per square inch). It is also intended to use rotaries in drilling a few wells to a depth of greater than 7000 feet in order to determine oil possibilities at a depth never before reached in the oil fields of Peru.

Wells drilled in the Brea and Parinas fields are brought in at an average depth of 2500 feet. Some are completed at 5000 feet, but in very few instances do they exceed this depth. Drilling operations as a rule do not offer serious difficulties since the formations encountered are sandy layers that have conglomerated with clay or chalk. The completed wells are put on pump. Central pumping stations as a rule serve 15 to 20 wells and are of the "slow motion" type, operated by gas engines. The crude is pumped to the refinery at Talara, where a part of it is stored to be exported directly, and the third part is used to manufacture by-products, a part of which are exported.

Natural gas is treated in seven plants, obtaining the natural gasoline through



Kobe supremacy extends right through from the strength of the pipe to better drainage of oil sands—all factors having been definitely and conclusively proved.

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the process of absorption. The yield of these plants last year was 937,189 barrels, obtaining on an average a little more than 1.5 gallons per 1000 cubic feet of gas. Free gas from gasoline is used as fuel in the operation of the refinery and in drilling operations. The remaining gas, which constitutes the greatest volume, is returned for repressuring with the object of increasing the production of the zones that are depleted, or to help bring in the wells by the gas-lift method. Both of these systems are giving good results in the Brea and Parinas fields. Cleaning out is done with tractors.

Besides the extensive oil fields mentioned as productive areas of International Petroleum Company, this company owns a refinery at the port of Talara with a capacity of 15,000 barrels of crude per day, together with storage tanks with a total capacity of two million barrels.

Within the last five years the machinery at the refinery at Talara has been totally modernized with efficient equipment for skimming and cracking. Recently the company has constructed a plant for manufacture of lubricating oils by the vacuum process.

Refinery at Talara

During the year just passed there were refined in the refinery at Talara 5,037,600 barrels of crude, from which were obtained 49 percent gasoline; 12.5 percent kerosene; 34.5 percent fuel Diesel oil; 0.5 percent lubricants. There is also at Talara a can and box factory, with a capacity of 8000 cans daily and 4000 boxes, a factory for the preparation of barrels or casks, and a factory to assemble steel cylinders.

As port facilities, the Bay of Talara has two good wharves; one concrete equipped with powerful hoisting cranes and power-driven conveyors in connection with the can and box factories; thus making it easy to load quickly the products put up in cans. The other wharf is of wooden construction and here oil tankers are anchored to load crude.

For the loading of crude, the company has constructed also a double underground eight-inch pipe line that ends at the buoy station one mile from the coast. Exportation of Peru's petroleum products is to Canada, United States, Europe, Chile, Argentina, Brazil, Bolivia, Ecuador, Central America, etc. The International Petroleum Company also owns a fleet of large oil tankers.

For the distribution of its products, the company has storage tanks not only in Talara but in different parts of the Pacific Coast, such as in Paita, Callao and Mollendo; Pisagua, Inquiqui, Tocopilla, Antofagasta, Taltal and Valparaiso, Balboa and Panama.

The refinery at Talara is connected with the oil fields by a railroad, with trunk lines and branches covering an area of about 200 kilometers and the whole field is traversed by a network of highways for automobiles and truck traffic.

For supplying water for carrying on the various enterprises the International Petroleum Company has a pumping plant at Portachuelo on the China River. The water here undergoes a settling treatment in large tanks. Then it undergoes a filtering process and is purified with chloride and pumped to the camps and refinery through 10-inch pipe lines. The trunk lines are 50 kilometers long and its branches more than 150 kilometers long. The capacity of this plant is three million gallons per day, but at the present time only one million gallons is necessary. The company employs 3050 persons.

Australia Fighting Alcohol-Blend Law

The Government of the Commonwealth of Queensland, Australia, has decided to apply for permission to appeal to the Privy Council against the judgment of the High Court given in April, 1934, declaring that the Queensland Motor Spirits Vendors Act was invalid because it was in conflict with Section 92 of the Commonwealth Constitution, providing for freedom of trade between the States.

In retrospect, during 1933 the Queensland Motor Spirits Vendors Act was passed by the Queensland Parliament. Under the provisions of this act it was compulsory for a firm selling and distributing gasoline in Queensland to take out a license. When the license was obtained, the firm had to purchase a quantity of power alcohol from the Government in proportion to the number of gallons of gasoline to be sold. The alcohol to be mixed with the gasoline worked out at about 2.1 gallons to every 100 gallons of gasoline.

England

Efforts to develop commercial production of crude petroleum in the British Isles proper has met with practically no success for the past generation. Production in the British Isles, that is England, Scotland and Ireland, for the past few years follows:

1930	60 tons
1931	87 tons
1932	91 tons
1933	38 tons

The above production has been derived principally from the Hardstoft Well in Derbyshire, and has been disposed of locally.

KEROTEST
REGISTERED U.S. PAT. OFF.

THE FAMOUS KEROTEST KEROSENE TEST

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KEROTEST adopted and introduced the KEROSENE TEST to the world for your safety—to give you that certain knowledge and assurance that KEROTEST products had quality materials and workmanship built into them to withstand factory inspection and tests of a more severe nature than they would ever be subjected to in field service.

Kerosene is known to be the most penetrating of all fluids. It will search out the tiniest flaw in a valve casting. When you add to this, a hydrostatic pressure equal to the test rating of the valve for several hours, it constitutes a super test that takes all the gamble out of valve buying. THIS SUPER-TEST IS STANDARD WITH ALL KEROTEST PRODUCTS.

For example, a bull plug is screwed into each opening of a Kerotest 5000 lb. pressure valve with the wedge or gate in the open position. The valve is then filled with Kerosene and a pressure of 5000 pounds to the square inch applied and held for several hours. This test completed, one of the bull plugs is removed, the wedge gate is closed and the full pressure applied against one side of the gate for 12 hours and then repeated on the opposite side.

With the pressure against the wedge in the closed position and the opposite end of the valve open, this test becomes a condition identical to that of oil field service where there would be no back pressure on the opposite side of the gate.

When the valve has successfully met both the body test and the seat test from both sides, it is given the cracking test where the pressure is reduced one-half and the valve opened and closed at gradually decreased pressures. In this test, the valve must also show itself to be tight WITHOUT pressure, the same as at high pressures.

KEROTEST
MANUFACTURING COMPANY
Pittsburgh, Pa.

KEROTEST
REGISTERED U.S. PAT. OFF.

WEST POINT - ANNAPOLIS USE SINCLAIR OILS

WEST POINTERS practice on 8-inch railroad gun at Fortress Monroe, Va. Trucks, tractors, motor cars and other equipment used at West Point are Sinclair-lubricated. The reputation of Sinclair products makes the Sinclair franchise especially valuable for distributors, jobbers and dealers.

ARMY TANK CORPS puts on a show for West Point cadets on one of their annual tours of military posts. Sinclair supplies oils and greases to the Army in 36 States for tanks and other motorized equipment.

MIDSHIPMEN parade at Annapolis. Battleships, destroyers, submarines, and aircraft on which middies are trained on the Atlantic seaboard are Sinclair-lubricated throughout.

MODEL of old Brontosaurus built by H. H. Ritts, enterprising Sinclair dealer of Kingston, Pa. Sinclair motor oils in Tamper-Proof cans are real sales builders for Sinclair distributors, jobbers and dealers.

BILL CHILDS of the famous Sinclair Minstrels says, "How do, gals" to Tyrannosaurus Rex, one of Sinclair's well-known dinosaurs. The Sinclair dinosaurs will be back at the Chicago World's Fair again this year—making more customers for handlers of Sinclair products.

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MARKETS — STATISTICS

Despite continued production of "hot" crude and gasoline in East Texas, which is undermining otherwise favorable conditions for improved prices, general market prices remain firm. Crude production situation is favorable.

Market Mostly Firm Despite East Texas Distress Sales

PRICES of petroleum products were mostly unchanged last week from the previous week's quotations, continuing close to the peak levels of the year, and the markets seemed to have a fairly firm undertone, despite some weakening in the Mid-Continent, induced by distress offerings of gasoline in the East Texas refining district.

While conditions in East Texas are tending to hold prices down, there are also important counteracting influences which tend to bolster the markets. Prominent among them are the lower crude and gasoline production allowables ordered by the oil administration for August, and the fact that gasoline business is still working up to new peak levels for the summer.

During July control efforts were sufficiently successful to cause encouraging reductions of the nation's stocks of both gasoline and crude oil, and since the allowables were materially reduced for August in the face of continued high prospective consumption, the month is expected to bring further substantial reduction of the stocks.

On the Pacific Coast market conditions have continued generally favorable, with prices for all products as well as crude oil holding firm. The market stabilization plan for the region has been in effect for several weeks, and has been working satisfactorily, bringing stabilization of the markets at higher levels. Retail prices of gasoline as well as refinery operations are controlled under the plan, and retail quotations are being maintained on higher planes, despite under-selling by a small percentage of stations.

The East Texas field and related refining district have continued to exert a dominant influence upon the Mid-Continent markets. Results in connection with the purchase and supply agreements have been the controlling factor in the situation in East Texas since the plan was inaugurated early in July.

Last week additional major company purchases of surplus gasoline from independent refiners were approved by the oil administration, pushing total purchases under the plan above 40,000 barrels. The prices in last week's transactions varied from 3⅞ to 4 cents a gallon for the third-grade material involved in most of the purchases. In the meantime, however, considerable gasoline was available in the district at prices ranging down to 3¼ cents a gallon, although the minimum quotations were prevailing for the most part at plants not participating in the market stabilization plan.

THE OIL WEEKLY
Estimated Average Daily Production of Crude Oil, Barrels

District or State	Week Ending Aug. 4	Week Ending July 28
TEXAS—		
Texas Panhandle	62,000	63,000
North Texas	58,600	58,500
West Central Texas	27,150	27,100
West Texas	147,000	147,000
East Central Texas	51,500	51,000
East Texas Field	471,250	469,000
South Texas	57,000	57,500
Texas Gulf Coast	170,000	170,000
Total Texas	1,044,500	1,043,100
OKLAHOMA—		
Oklahoma City	96,705	154,600
Seminole Area	104,925	124,835
Tatums	8,820	6,500
Lucien	6,500	6,070
Others	198,225	199,720
Total Oklahoma	415,175	491,725
KANSAS—		
Ritz-Canton	14,400	14,800
Voshell	6,600	6,965
Nikkel-Hollow	16,210	17,135
Sedgwick	7,100	7,150
Others	87,840	90,700
Total Kansas	132,150	136,750
LOUISIANA—		
North Louisiana	24,775	24,875
Louisiana Gulf Coast	72,000	70,000
Total Louisiana	96,775	94,875
ARKANSAS	31,500	31,500
CALIFORNIA—		
Long Beach	64,000	67,000
Santa Fe Springs	38,000	40,000
Huntington Beach	41,000	49,500
Dominguez	20,500	18,000
Inglewood	9,000	10,000
Ventura Avenue	30,000	28,000
Seal Beach	7,000	7,000
Midway-Sunset	54,000	56,000
Elwood	12,000	11,000
Kettleman Hills	65,000	72,000
Playa del Rey	8,000	9,000
Others	171,500	148,500
Total California	500,000	516,000
MOUNTAIN STATES—		
Wyoming	36,500	36,500
Montana	8,750	8,700
Colorado	3,350	3,500
Total Rocky Mountain States	48,600	48,700
NEW MEXICO	49,000	48,500
EASTERN STATES	102,000	104,000
MICHIGAN	31,000	31,000
Total United States	2,450,700	2,546,150

Over 75 percent of the refineries in the district signified approval of the agreements, but some declined to cooperate, and some new plants have entered the picture since inauguration of the plan. Under the agreements major companies are buying surplus gasoline from the independents, and the latter are obligated to process only legally produced crude and to abide by gasoline production quotas allocated to plants by the oil administration.

Considering the continued high production of "hot" oil in the big field, it is obvious that large volumes of such crude are being refined; and charges are being made that some of the refiners participating in the agreements as well as non-participants are currently running "hot" oil and exceeding refinery quotas. "Hot" crude and "hot" gasoline are therefore responsible in large measure, apparently, for the current low-priced offerings. At the same time another explantation has been offered for the offering of gasoline at low prices, since they have been made by participants as well as non-participants in the stabilization program. That explanation is that some of the low priced material may be inventory gasoline which participants held back in expectation of higher prices, only to encounter difficulty now in disposing of it to big companies with market up.

While prices of gasoline have varied greatly at East Texas refineries, particularly as between purchases under the stabilization plan and "outside" transactions, the prices for Group Three are indicated to have averaged around 4 cents a gallon last week for third-grade, 4⅝ cents for 60-64 octane or standard grade, and 4⅞ cents for 65 octane and above. Those prices have been in effect for about two weeks, and are a quarter-cent higher for all grades than quotations in the early part of July.

Retail gasoline markets have naturally been somewhat unsteady in the Mid-Continent on account of the distress offerings of East Texas refiners. But depressed prices have been limited lately for the most part to cities and towns in Texas within easy reach of the East Texas refining district. In Dallas and

Fort Worth third-grade gasoline continued to sell generally at 10 cents last week, although a few stations had 9-cent signs up, those postings including 5 cents federal and state taxes. Those cities have been the scenes of a long price war. Houston had been free of such wars for about two months when prices broke about 10 days ago from 15 to 13 cents for third-grade. Last week the price dropped further to 12 cents.

It was hoped, however, that the price wars in the Texas cities would be terminated shortly through efforts of committees put to work under sponsorship of the oil administration. The administration recently announced that such committees would be appointed henceforth in efforts to settle promptly any price wars which may arise.

Crude Output Drops Almost To Reduced Allowable

IN view of the materially reduced allowable for August ordered by the oil administration, the United States crude oil production situation is expected to contribute to market strength during coming weeks; and interest as to how closely the lower allowables will be observed in coming weeks tends to eclipse last week's production figures, even though the latter were especially encouraging. Although the week included days when the July allowables were in effect, the daily average crude output of the nation for the whole week was practically down to the August allowable.

Under the allowables placed in effect August 1 the total authorized production of the country aggregates 2,449,300 barrels daily, or 81,000 barrels less per day than in July. Texas has been called upon to account for approximately half the reduction, and California a quarter of it, with the remainder divided among various other states.

The state Railroad Commission reduced Texas allowable to a point about 25,000 barrels less than the allowable authorized by the federal government, thus cutting the state around 65,000 barrels daily. Most of the Texas reduction is to be achieved under the commission's orders through a deep cut for the East Texas field. As of August 1 that area's allowable was fixed at approximately 400,000 barrels daily, whereas the field's authorized output reached about 471,000 barrels daily during July.

In view of numerous protests against the large East Texas reduction, particularly from independent producers, the possibility looms that violations may tend to increase in August, even though "hot" oil production was estimated as averaging around 75,000 barrels daily in the field during July.

Illegal production was confined mainly to East Texas in July, and with allowables observed fairly well in all other areas, the industry went through the month with a net reduction in crude oil stocks. Such reduction was achieved, moreover, in the face of sub-normal refinery operations, as about 3,000,000 barrels of gasoline came from storage rather than new production in meeting consumptive requirements.

Considering the relatively successful control efforts in July along with the lower crude and gasoline production allowables for August, the immediate market outlook is therefore promising.

Last Week's Production

As regards production results for the week ending August 4, there was again probably 75,000 barrels daily of unreported production in the East Texas field, representing "hot" or illegally produced crude.

Reported production for the whole United States averaged 2,450,700 barrels daily, or 79,600 barrels less than the July allowable, and only 1400 barrels more than the August allowable. In the previous week the output had averaged 2,546,150 barrels daily. Thus a decline of 95,450 barrels occurred for the new week.

For last week's lower production Oklahoma was largely responsible, that state having shown a decline of 76,550 barrels in average daily output. California production was also down about 16,000 barrels. That of Texas was virtually unchanged from the previous week's level.

Oklahoma's new rate of production was 415,175 barrels daily, compared with 491,725 barrels daily the previous week. The state allowable as fixed by the federal government for August 1 is 480,100 barrels. It was 489,500 barrels daily in July.

California production in the week of August 4 averaged 500,000 barrels, compared with 516,000 barrels daily the week before. It was therefore under the July allowable of 509,500 barrels daily, and not far above the August allocation of 490,200 barrels.

The recorded production in Texas last week averaged 1,044,500 barrels daily, or about 1600 barrels more than in the previous week, and was therefore only slightly above the July allowable of 1,042,100 barrels daily. For August the Texas allowable has been fixed by the federal gov-

How Production Compares with Federal Allocation

	Allocation July	Week Ending August 4[1] Daily Average		4 Weeks, July 28[2] Daily Average	
Arkansas	33,000	31,500	−1,500	31,900	−1,100
California	509,400	500,000	−9,400	522,350	+12,950
Kansas	134,500	132,150	−2,350	134,650	+150
Louisiana	88,900	96,775	+7,875	96,050	+7,150
Texas	1,042,100	1,044,500	+2,400	1,044,000	+1,900
Oklahoma	489,500	415,175	−74,325	519,250	+29,750
New Mexico	46,600	49,000	+2,400	48,300	+1,700
Rocky Mountain	44,200	48,600	+4,400	48,800	+4,600
Appalachian States	108,900	102,000	−6,900	100,600	−8,300
Michigan	33,200	31,000	−2,200	30,400	−2,800
United States	2,530,300	2,450,700	−79,600	2,576,300	+46,000
Imports crude and fuel oil				117,821	
Crude to Stills[2]				2,570,000	

[1]Oil Weekly estimate for current week. [2]A. P. I. estimate.

Crude Runs to Stills; Finished and Unfinished Gasoline; Gas and Fuel Oil Stocks, and Cracked Gasoline Production, Week Ended July 28, 1934

(Figures in thousands of barrels of 42 gallons each)

DISTRICT	Daily Refining Capacity of Plants			Crude Runs to Stills		Stocks of Finished Gasoline			(a) Stocks of Unfinished Gasoline	(b) Stocks of Other Motor Fuel	Stocks of Gas and Fuel Oil	Daily Charging Capacity of Cracking Units			Cracked Gasoline Production
	Potential Rate	Reporting		Daily Average	% Operated	At Refineries	Bulk Term., in Trans. & Pipe Lines	Total at Refys., Term., etc.				Potential Rate	Reporting		Daily Average
		Total	%										Total	%	
East Coast	582	582	100.0	508	87.3	5,559	9,628	15,187	1,125	210	10,873	496	471	95.0	76
Appalachian	150	140	93.3	105	75.0	841	736	1,577	299	166	1,122	69	69	100.0	26
Ind., Ill., Ky.	446	422	94.6	332	78.7	4,628	2,760	7,388	1,163	49	4,025	325	309	95.1	92
Okla., Kans., Mo.	461	38[illegible]	83.7	256	66.3	3,288	1,719	5,007	614	575	3,522	256	238	93.0	64
Inland Texas	351	167	47.6	94	56.3	965	86	1,051	283	496	1,526	82	66	80.5	24
Texas Gulf	566	552	97.5	487	88.2	3,542	274	3,816	1,662	194	8,106	358	355	9.92	101
Louisiana Gulf	168	162	96.4	122	75.3	790	569	1,359	206	10	1,934	71	71	100.0	19
North La.,—Ark.	92	77	83.7	64	83.1	241	12	253	84	27	502	41	38	92.7	12
Rocky Mountain	96	64	66.7	38	59.4	798	.....	798	123	39	634	46	42	91.3	11
California	848	822	96.9	458	55.7	10,491	1,670	12,161	1,030	2,334	78,639	209	209	100.0	54
TOTALS WEEK: July 28, 1934	3,760	3,374	89.7	2,464	73.0	31,143	17,454	48,597	6,589	4,100	110,883	1,953	1,868	95.6	479
July 21, 1934	3,760	3,374	89.7	2,431	72.1	32,065	17,116	49,181	6,747	4,100	109,208	1,953	1,868	95.6	483

Below are set out estimates of Crude Runs and Cracked Gasoline Production on B. of M. Basis for Week July 28, 1934 compared with July 1933 Bureau figures.

Estimate B. of M. Basis July 28, 1934	2,625		520
Estimate B. of M. Basis July 21, 1934	2,590		520
U. S. B of M. July 1933: Daily Average Crude Runs	2,565	U. S. B. of M. July 1933: Daily Average Cracked Prod.	549

(a) Amount of unfinished gasoline contained in naphtha distillates.
(b) Estimated. Includes unblended Natural Gasoline at refineries and plants; also blended Motor Fuel at plants.

ernment at 1,001,300 barrels daily, while the Texas Railroad Commission's schedule provided a total allowable of only 981,556 barrels daily as of August 1.

Louisiana has continued to over-produce, under influence of flush fields in the coastal section of the state. Last week the state's output averaged 96,775 barrels daily, representing no material change from the previous week. As of August 1 the Louisiana allowable was lowered by the federal government from 88,900 barrels daily to 87,200 barrels.

The Kansas allowable was also reduced August 1, having been cut from 134,500 barrels per day to 131,200 barrels. Last week the state averaged 132,150 barrels daily, as compared with 136,750 barrels per day the previous week.

Soviet negotiators were in Santiago, Chile, late in July discussing a reciprocal trade agreement by which Russia will agree to take Chilean copper, nitrate, hides and wool in return for sales to Chile of oil and electric light bulbs by Russia.

To what extent the above agreement may affect Venezuela and California's oil export business is not known.

California Markets Firm As Stocks Drop

WITH port strikes on the West Coast called off, as of about August 1, the normal movement of gasoline in tankers up and down the West Coast will be resumed. This movement has been greatly restricted for weeks. Practically all the storage depots and bulk stations in the general vicinity of San Francisco, Seattle and Portland have been extremely low in stocks, or dry entirely, since soon after the port strikes became effective. The port at Los Angeles has been open close to 75 percent, due to the open shop policy of Los Angeles, and the use of non-union workers and seamen.

The fuel oil market is showing a firm tendency, due to declining stocks. No refiner is having any trouble in disposing of his fuel oil in legitimate channels. The few small price cutting plants have so little fuel oil, it does not bother. Diesel and gas oils are stronger and scarce.

In shipping circles, it is expected tanker rates will show an improvement within 60 days. Tanker owners are now asking from 50 to 55 cents for loads from Cali-

Summary of Field Results During Past Week

State	Completions	Oil wells	Gas wells	Failures	Init. prod.
California	7	5	0	2	2,825
Indiana	1	1	0	0	60
Kansas	19	16	0	3	7,015
Kentucky	8	7	0	1	815
Louisiana	11	8	0	3	5,161
Michigan	16	9	2	5	2,192
Mississippi	1	0	0	1	0
Montana	3	1	0	2	300
New Mexico	3	1	0	2	20
Ohio	34	11	12	11	80
Oklahoma	30	21	0	9	12,640
Pennsylvania	18	6	7	5	330
Texas	191	146	5	40	531,069
Wyoming	3	3	0	0	810
Total	345	235	26	84	563,317

Comparison of Permits Granted for New Wells

State—	Week ending Aug. 4	Total this month	Total this year	Total this date last year	1933 year total
Arkansas	1	1	50	32	47
California	9	9	390	498	593
Louisiana	1	1	439	443	755
Kansas	24	24	582	364	682
Michigan	12	12	270	184	420
Oklahoma	25	25	1,245	609	1,315
Texas	194	194	7,357	3,862	7,845
Total	266	266	10,333	5,992	11,651

fornia to the East Coast. This price will likely be boosted to 60 to 65 cents in a few weeks. These prices include canal tolls.

The retail gasoline price situation in Southern California is holding firm, and of the several thousand service stations in the area, only 60 are selling at prices less than official. Some "motor fuel," which cannot be sold as gasoline under state specifications, is sold at 14 to 14.5 cents by a few small independent stations.

Los Angeles.—Oil producers of California are not feeling any too good over Oil Administrator Harold L. Ickes' order reducing the state's allowable from 509,400 barrels to 490,200 barrels a day, effective in August.

California refiners are also protesting the new gasoline allowable for August, which is 4,954,000 barrels for the month, against an allowed output of 5,535,000 barrels in July. The refiners feel that they should not be asked to make such a cut in runs at this time, but this cut is in the face of a storage of 12,738,692 barrels in the state as of June 30.

It is surmised the oil administrator would like to see a real decrease in California's stock of gasoline. The present method of reporting refinery runs and also on the operation of natural gasoline plants will make it possible to keep a closer check on the output of all plants, as well as having a record of the raw products coming to the refineries.

It is probable federal authorities took into consideration the lower consumption of gasoline on the West Coast in July, due to port strikes at San Francisco, Portland and Seattle. Just how much lower the consumption will be, will not be known for two or three weeks yet, as the Bureau of Mines and American Petroleum Institute do not issue their West Coast reports until about the 20th of the month.

It is expected the new rule in effect in California in August permitting the removal of overproduced crude in leased storage will help, coupled with another regulation which will not require a producer to make up his previous overproduction, provided he observes strictly his allowable from now on. This regulation may assist in persuading such producers to play the game.

Producers and refiners are also feeling more optimistic after receiving word that the East Texas "hot oil" situation probably is to be solved. They have their fingers crossed, as such information has come to them before. But their best wishes go out to those who are trying to solve a problem that has failed heretofore.

The natural gasoline situation in California is fairly well in hand, and is showing further improvement. The going price of natural gasoline ranges from 6 to 6.5 cents, covered by contracts. Production of this product about equals consumption. Under the new marketing plan, only new and small refineries are cutting the price. These plants must have natural gasoline for blending and they are finding practically none on the spot market.

These new plants are in some instances offering 8 to 10 cents a gallon for natural gasoline and are not getting what they want. This one fact alone is a big help in holding the retail market firm. These plants are getting some crude, but their old sources of crude supply are getting tighter all the time.

California Gasoline Stocks Show Decline

STOCKS of gasoline decreased 14,100 barrels to 14,169,127 barrels in June in California, according to the West Coast office of the Bureau of Mines at San Francisco, and the daily average production of this product in California decreased 5000 barrels a day during the first six months of 1934, compared with same period last year.

The total market demand for gasoline in June on the West Coast was 186,852 barrels per day, which included 55,663 barrels daily offshore shipments. Pacific foreign shipments averaged 16,838 barrels a day.

During June, 42 refineries were operating and 91 natural gasoline plants were active.

June Runs to Stills Increase, Stocks Decline

Washington, D. C.—Receipts of crude oil at refineries in June totaled 75,493,000 barrels, of which 71,918,000 was domestic and 3,575,000 foreign oil, it is shown by the monthly report of the Bureau of Mines. The average of 2,516,000 barrels a day showed little change from the May average of 2,517,000 barrels.

Runs to stills during the month were 76,054,000 barrels, the average of 2,535,000 per day being 75,000 above the May level.

As a result of heavier runs to stills than receipts, stocks again showed a decline, dropping from 66,361,000 barrels June 1 to 65,442,000 barrels June 30, it was reported.

Group 3 Markets Continue Weak

CONTINUED weakness of the Mid-Continent refined market was explained as being due entirely to the somewhat demoralized condition in East Texas.

Prices in Group 3, Oklahoma territory, exclusive of tax, were approximately as follows:

Refinery gasolines—third grade U. S. motor, 59 and below octane rating, 3½ to 3¾ cents; middle grade or 59 to 64 octane rating, 4⅝ to 4⅞ cents; premium grade of 65 and above octane, 4⅞ to 5⅛ cents; 60-62, 400 end point, 3½ to 3¾ cents; 64-66, 375 end point, 4⅛ to 4⅜ cents; 68-70 360 end point, 4⅜ to 4⅝ cents.

Kerosenes—41-43 water white, 3⅛ to 3¼ cents; 42-44, water white, 3¼ to 3⅜ cents.

Natural gasolines—the 26-70 grade was strong at 3 to 3¼ cents but all stabilized grades were weak due to the low price of U. S. motor.

Burning oils—38-40 prime white distillate, 2½ to 2¾ cents; 38-40, straw, 2½ to 2¾ cents; 32 to 36 dark gas oil, 2¼ to 2½ cents; and 32-36, dark industrial, 2⅛ to 2⅜ cents.

To Build Carbon Black Plant in Oklahoma

Oklahoma City.—The Oklahoma Corporation Commission issued permit on Tuesday, July 31, to Ben H. Ashe and associates for the construction of a carbon black plant three miles from Guymon, in Texas County, Oklahoma. Petition for the permit was filed on May 25, 1934, by citizens and land owners headed by R. L. Jackson of Guymon and the permit was granted only after several hearings to discuss protests filed by Magnolia Petroleum Company, Cities Service Gas Company, Empire Oil and Refining Company, Panhandle-Eastern Pipe Line Company, and Texas-Interstate Pipe Line Company. Protestants claimed that the carbon black market is oversupplied at present and to produce natural gas for such purposes would defeat conservation efforts.

The petitioners asserted they were land and royalty owners in Sections 3, 4, 6 and 7-3n-15e, and that major pipe line companies serving the area had failed to furnish a market. The Guymon field consists of three gas wells having a combined daily potential capacity of approximately 50,000,000 cubic feet.

Crude Oil Price Quotations

(Figures Represent Basic or Flat Prices—Revised to August 3, 1934)

DISTRICT	Low Grav.	Dif.	High Grav.	Date
Oklahoma-Kansas	28—$ .84	2¢	40—$1.08	9-29-33
N. and N.-C. Texas	28— .79	2¢	40— 1.03	9-29-33
Texas Panhandle				
Gray County	34— .79	2¢	40— .91	9-29-33
Carson-Hutchinson	34— .69	2¢	40— .81	9-29-33
West Texas				
Ector, Pecos, Wk'lr., Crane, Upton, Howard	*.75			9-29-33
and Glasscock	*.70			9-29-33
East Texas	*1.00			9-29-33
Texas Gulf Coast				
Conroe	35— 1.09	2¢	40— 1.19	9-29-33
Tomball	*1.15			9-29-33
Cleveland	*1.00			1-11-34
†Goose Creek, Hull Liberty, Orange Pierce Junction, Moss Bluff, Raccoon Bend, Sour Lake Spindletop, Sugarland, West Columbia, Humble, Rabbs Ridge	Below 20— .92	2¢	34— 1.12	9-29-33
South and SW Texas†	Below			
Refugio (Light)	20— .82	2¢	34— 1.12	9-29-33
Refugio (Heavy)	.85			9-29-33
Saxet	*.85			9-29-33
Mirando	*.80			9-29-33
Pettus	*1.05			9-29-33
Salt Flat	*.87			9-29-33
Darst Creek	*.87			9-29-33
Arkansa				
El Dorado (Light) and Rainbow	29— .79	2¢	40— 1.03	3-17-34
Eldorado East Field and Smackover	*.70			9-29-33
orth Louisiana	29— .79	2¢	40— 1.08	9-29-33
Urania	*.85-*.87			1- 1-34
South Louisiana	Below			
Lockport	20— .80	2¢	34— 1.10	9-29-33
Iowa, Cameron Mds.	Below 20— .70	2¢	34— 1.00	9-29-33
Rocky Mountain States				
Salt Creek	29— .84	2¢	40— 1.08	9-29-33

*All gravities—flat rate.
†Gulf Coast prices as posted by Humble Oil & Refining Company.

DISTRICT	Low Grav.	Dif.	High Grav.	Date
Elk Basin	$*1.17			9-29-33
Grass Creek (Light)	*1.17			9-29-33
Big Muddy	*1.01			9-29-33
Rock Creek	*1.02			9-29-33
Sunburst	*1.35			9-29-33
Lance Creek	*1.02			8-25-33
Osage	*.62			8-25-33
Cat Creek	*.45			8-25-33
Pondera	*.65			8-25-33
Hog Back, N.M.	*1.00			9- 8-33
Lea County, N.M.	*.75			9-29-33
Mid-West States				
Lima	*1.30			9-29-33
Illinois	*1.13			1- 5-34
Princeton	*1.13			1- 5-34
Western Kentucky	*1.17			9-29-33
California				
Signal Hill	14— .65	1¢	16—$ .66	9- 6-33
	17— .69	2¢	22— .84	9- 6-33
	23— .88	3¢	30— 1.09	9- 6-33
Seal B.,Alamitos Hts.	19— .65	3¢	20— .68	9- 6-33
	21— .72	4¢	22— .76	9- 6-33
	23— .81	4¢	26— .93	9- 6-33
	27— .98	4¢	30— 1.10	9- 6-33
Huntington Beach	14— .65	4¢	15— .69	9- 6-33
	16— .72	3¢	19— .81	9- 6-33
	20— .83	3¢	28— 1.07	9- 6-33
	29— 1.09	3¢	30— 1.12	9- 6-33
Inglewood	14— .65	4¢	16— .73	9- 6-33
	17— .76	4¢	18— .80	9- 6-33
	19— .83	4¢	20— .87	9- 6-33
	21— .90	4¢	22— .94	9- 6-33
	23— .97	4¢	24— 1.01	9- 6-33
Playa del Ray	14— .65	1¢	15— .66	9- 6-33
	16— .69	4¢	17— .73	9- 6-33
	18— .76	4¢	19— .80	9- 6-33
	20— .83	4¢	21— .87	9- 6-33
	22— .90	4¢	23— .94	9- 6-33
	24— .97	3¢	25— 1.00	9- 6-33
			26— 1.04	9- 6-33
Olinda-Brea Canyon	14— .65	4¢	16— .73	9- 6-33
	17— .76	3¢	28— 1.10	9- 6-33
Athens-Rosecrans Domingues	23— .83	3¢	24— .86	9- 6-33
	25— .90	4¢	26— .94	9- 6-33
	27— .97	3¢	29— 1.04	9- 6-33
	30— 1.08	4¢	31— 1.12	9- 6-33
			32— 1.15	9- 6-33
Elwood (fob ship)	33— 1.03	3¢	37— 1.15	9- 6-33
Torrance	14— .65	1¢	15— .66	9- 6-33
	16— .69	3¢	20— .81	9- 6-33
	21— .83	3¢	26— .98	9- 6-33

*All gravities—flat rate.

DISTRICT	Low Gra .	Dif.	High Grav.	Date
Richfield	15—$ .65	2¢	16—$ .67	9- 6-33
	17— .70	4¢	20— .82	9- 6-33
	21— .85	4¢	22— .89	9- 6-33
	23— .93	4¢	24— .97	9- 6-33
	25— 1.00	4¢	27— 1.08	9- 6-33
	28— 1.11	4¢	29— 1.15	9- 6-33
Whittier-LaHabra	15— .65	3¢	18— .74	9- 6-33
	19— .78	3¢	24— .93	9- 6-33
Montebello	19— .65	1¢	20— .66	9- 6-33
	21— .69	3¢	22— .72	9- 6-33
	23— .76	4¢	24— .80	9- 6-33
	25— .85	4¢	26— .89	9- 6-33
Coyote Hills	16— .65	3¢	19— .74	9- 6-33
	20— .78	3¢	29— 1.05	9- 6-33
	30— 1.09	3¢	34— 1.21	9- 6-33
Santa Fe Springs	21— .72	4¢	22— .76	9- 6-33
	23— .79	4¢	25— .87	9- 6-33
	26— .90	4¢	28— .98	9- 6-33
	29— 1.01	4¢	30— 1.05	9- 6-33
	31— 1.08	4¢	33— 1.16	9- 6-33
	34— 1.19	4¢	35— 1.23	9- 6-33
	36— 1.26	4¢	38— 1.34	9- 6-33
New Hall, Mckittrick, Kern River	14— .57		19— .57	9- 6-33
Midway Sunset, Elk Hills,Buena Vista Hills	17— .57	4¢	18— .61	9- 6-33
	19— .64	3¢	22— .73	9- 6-33
	23— .77	4¢	33— 1.17	9- 6-33
Lost Hills	17— .57	4¢	21— .73	9- 6-33
	22— .76	3¢	30— 1.00	9- 6-33
Coalinga	17— .57	1¢	18— .58	9- 6-33
	19— .62	3¢	21— .68	9- 6-33
	22— .72	3¢	25— .81	9- 6-33
Wheeler Ridge	17— .57	1¢	18— .58	9- 6-33
	19— .61	3¢	25— .79	9- 6-33
Kettleman Hills	33— .93	3¢	39— 1.11	9- 3-33
Pennsylvania				
Bradford	*2.25			4- 1-34
Sw Pa., Pipe Line	*2.22			4- 1-34
Eureka Pipe Line	*2.17			4- 1-34
Buckeye Pipe Line	*2.07			4- 1-34
Corning Grade	*1.20			9-11-33
Michigan				
Central Michigan	*1.20			9-30-33
Muskegon	*.70-1.00			12-31-32
Canada				
Petrolia	*2 10			9- 9-33
Oil Springs	*2.17			9- 9-33

*All gravities—flat rate.

MAJOR PRICE CHANGES

	Penna. (Nat. Tr.)	Mid-Cont. (36 Gr.)	Calif. (26 Gr.)
March 5, 1933	.....	.....	Cut 24¢
May 2, 1933	.....	Cut 19¢	.....
May 9, 1933	Cut 20¢	.....	.....
May 22, 1933	Up 10¢	.....	.....
June 19, 1933	Up 10¢	Up 19¢	.....
June 26, 1933	Up 10¢	.....	Up 9-12
July 6, 1933	Up 13¢	Up 10¢	.....
July 17, 1933	Up 15¢	.....	.....
July 28, 1933	Up 15¢	.....	.....
August 11, 1933	Up 10¢	.....	.....
August 24, 1933	.....	Up 10¢	.....
August 30, 1933	Up 15¢	.....	.....
September 6, 1933	Up 10¢	Up 10¢	Up 15¢
September 8, 1933	.....	Up 15¢	.....
May 1, 1934	Up 10¢	.....	.....

CRUDE PRODUCTION TAXES

Oklahoma—Three percent of gross value less royalty interest.

Texas—Two cents or 2 percent, whichever is higher.

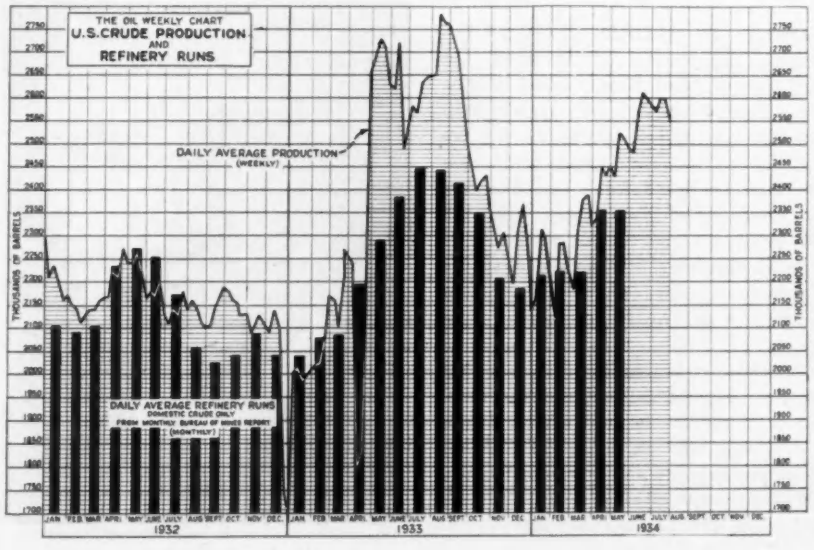
Louisiana—From four to 11 cents a barrel, depending upon gravity.

Arkansas—2.6 percent of gross market values.

Montana—Three percent of gross value at well and ½-cent per barrel.

Wyoming and New Mexico—Production tax based upon state and county assessments.

California—.66443 mills per barrel of oil produced and 17.39 cents per acre on proved oil lands.



MEN IN THE INDUSTRY'S NEWS

HENRY NETHING, for several years superintendent of production in the McPherson, Kansas, district for Stanolind Oil and Gas Company, has been transferred to Ellinwood, in southeastern Barton County, to become superintendent of production in the company's newly created Ellinwood district. He is succeeded at McPherson by W. H. Whestone, formerly superintendent of production in the company's El Dorado district from which he was transferred to McPherson.

MERRILL HAAS, Great Bend, Kansas, formerly research micro-paleontologist for Humble Oil & Refining Company, left during the week for Venezuela to become chief geologist for Lago Petroleum Corporation.

M. M. KINLEY has returned to Tulsa after extinguishing a burning gas well for Stanolind Oil and Gas Company in the Greta field of South Texas.

H. R. HAMILTON, independent operator of Long Beach, California, suffered a broken leg July 26 when he started to leave hurriedly a derrick floor of a well about to make a head.

GEORGE PIRTLE of the firm of Hudnall and Pirtle, consulting geologists of Tyler, Texas, arrived in Mount Pleasant, Michigan, this week with Mrs. Pirtle for a six weeks' visiting and business trip. Mr. Pirtle, who was geologist for the McClanahan Oil Company two years ago, is staying with Mr. and Mrs. Walter L. McClanahan.

MAJOR E. E. ALDRIN, head of the aviation department of Standard Oil Company of New Jersey, sailed August 1 for Europe where he will remain until late this fall. While abroad he will coordinate the overseas interests of Stanavo Specification Board, Inc., and Standard Oil Company of New Jersey. He will also serve as representative of the Aeronautical Chamber of Commerce at the International Air Traffic Association Conference at The Hague late in August.

In addition to visiting various points on the continent and witnessing a number of European aviation events, Major Aldrin will take an active part abroad in supervising the arrangements Stanavo distributors are making to supply fuels and lubricants for the entrants in the Mac Robertson Trophy Race this fall.

M. J. CZARNIECKI, formerly general manager of sales for A. M. Byers Company, was elected vice president in charge of sales, succeeding H. W. Rinearson, resigned, at a meeting of the board of directors on July 30.

E. L. SMITH, president of the E. L. Smith Oil Company, has returned to headquarters at Mexia, after spending a vacation accompanied by members of his family in Mexico City.

W. H. FERGUSON, executive vice president of Continental Oil Company, with headquarters in Denver, Colorado, has been active in the Rocky Mountain petroleum industry in all its branches for the past 15 years.

Mr. Ferguson had his baptism in oil as a member of the firm of Smith, Brock & Ferguson, who specialized in petroleum litigation. He became a member of the board of directors and general counsel for Continental Oil Company in 1922. In 1924 he was made executive vice president and continued in that position after the merger of Continental Oil Company with Marland Oil Company in 1929.

The far-flung holdings of Continental Oil Company has taken Mr. Ferguson to all parts of the United States and to several foreign countries. He is general chairman of the petroleum code of Region No. 5, which embraces the states of Montana, Wyoming and Colorado.

W. H. FERGUSON

CARY P. BUTCHER, geologist in West Texas for the past nine years and more recently engaged in consulting work at San Angelo, is now with Tide Water Oil Company, which has established a district office at Midland, Texas, in anticipation of reviving its activity in West Texas and New Mexico. Butcher will be district geologist. Joe Leonard, scout, has also been transferred by the company from Palestine to Midland. Frank Schneider is superintendent of production in this district.

DIED:

CHARLES E. BOWLES, 62, widely known statistician and petroleum economist, died at his home in Tulsa on Tuesday evening, July 31. He first became ill 12 weeks ago when he suffered a heart attack and had been able to be at his office a portion of the time, although he had not been able to regain his strength.

He was born and reared in Preble County, Ohio, in which he served as superintendent of schools for several years. Later he attended the University of Chicago, where he studied general science and for several years afterward specialized in advertising, sales management and organization work. He came to Tulsa in 1921, where he maintained his residence until the time of his death, except for a short stay in Oklahoma City. He had been connected with several consulting engineering firms, the Independent Petroleum Association of America, the Tulsa and Oklahoma City Chambers of Commerce, H. F. Wilcox Oil and Gas Company. and Mid-Continent Oil and Gas Association. He was assistant secretary of the latter organization from February to November of 1925.

DR. J. E. BRISTOW, 64, West Texas producer, died July 26 at Santa Barbara, California, where he has been for the past year trying to recuperate from a long illness. The body was forwarded to his home at San Angelo, Texas, for funeral services early last week. Dr. Bristow was a graduate of the University of Oklahoma and University of Arkansas. He practiced medicine until an infection caused the amputation of an arm, and then entered the oil business with F. W. Merrick, Ardmore, Oklahoma, operator.

Congratulations to Halliburton

Congratulations on your attractive advertisement which appears on the front cover of the July 30th issue of OIL WEEKLY, titled: "A Decade of Progress" and picturing a motor truck with Weed Chains on its tires plowing through deep mud.

It appeals to us as being especially appropriate on your Tenth Anniversary, and we greatly appreciate your picturing Weed Tire Chains because they are a product of our Associate Company—American Chain Company, Inc.

Trulay yours,

AMERICAN CABLE COMPANY, INC.
Manufacturers of the famous
Tru-Lay Preformed Wire Rope.

August 1st, 1934.

Commission to Check Every Lease in Texas

Austin, Texas.—Plans of the Texas Railroad Commission to make a detailed check on production in every Texas oil field similar to that now made in East Texas and at Conroe were announced last week in a series of instructions to deputy supervisors in the various fields and the promulgation of an order requiring monthly reports on oil runs from every lease in Texas.

Producers in all fields are now required to file a form monthly similar to the E-B form used in East Texas. The first reports must be in district offices of the commission not later than August 15, and must indicate production for the entire month of July.

Reports from pipe line companies and refineries are also required, and by checking one report against another, the commission hopes to be able to determine the source and disposition of every barrel of oil produced in Texas.

The order to producers, which was issued on July 24, reads as follows:

"Effective this date the producer's report now required in the East Texas field and the Conroe field is hereby revised to apply to each and every oil field in the State of Texas. Covering each calendar month, this report will be made by each producer for each lease in each oil field in the State of Texas. On or before the 15th day of the month subsequent to the period of the report, the producer shall mail or deliver said report to the district office of the railroad commission to which the field that his report pertains is assigned. All instructions printed on the face of the Producer's Report shall be in effect as if included in this order.

"The Producer's Report shall include total oil on hand at the beginning of a month, total oil produced, total allowable for the lease, total pipe line runs from the lease, any other disposition of the oil, total oil on hand at the end of the month, and a proper description of the lease, including number of wells, storage capacity, and the number of wells not producing."

Refineries in each district are to file their reports on the same basis, and instructions have been issued to deputy supervisors to check rail shipments. It is believed that with these combined reports, deputy supervisors will be able to determine the source and disposition of any oil produced in excess of the allowable.

Pipe line companies will be required to file in the Austin office of the commission the monthly E-D report, which shows the source, by leases, of all oil which they have accepted for transportation during the previous month. These reports must be in Austin not later than the 20th of the month following the month reported.

Field supervisors are required to report to the commission monthly by fields, the amount of oil in storage at the beginning and end of the month held by producers and refiners, and the amount of oil produced and the amount run to stills.

These supervisors have been instructed to list any operators who have failed or refused to report on the status of the crude they handle.

East Texas Drilling Costs May Be Lowered

Dallas, Texas.—A slight reduction in the minimum code price governing drilling costs applied to the East Texas field since May 23 was forecast at a hearing conducted here August 1 by the East Texas Zone Committee of the Drilling Practices Committee for Texas. D. E. Legan, superintendent of production for Tide Water Oil Company, Houston, and vice chairman for the East Texas district, presided at the hearing, which was attended by about 40 of the leading drilling contractors and representatives of companies and individuals with holdings in the field.

The original contract price for East Texas was placed at a minimum of $1.51 per foot to be in effect for 90 days.

More detailed information was submitted by contractors and companies having rigs of their own in service at the hearing held last week, in contrast to only 17 concerns, involving experience on 224 wells, submitting complete reports at the first session.

Contractors and companies operating rigs for developing their own leases were in accord in placing a replacement value of $45,000 on a rotary rig suitable for service in East Texas, and $8000 for drill pipe. Open discussions conducted by Legan revealed that the serviceable life of a rig ranges from 80 to 100 wells, varying according to the time alotted drilling crews in completing the wells, which average about 3650 feet in depth. Average drilling time ranges from 11 to 15 days. It was also revealed that the average life of a string of drill pipe does not exceed 40 wells.

Other members of the East Texas Zone Committee includes: E. L. Smith, president of E. L. Smith Oil Company, Mexia; John R. Black and Harry W. Bass, both Dallas contractors. This committee functions as a fact finding body, basing its judgment on the costs revealed at the hearing, and is to make its recommendation to the general committee, which is headed by Joe H. Russell, Gulf Production Company, Houston.

Revised Texas August Allowable Cuts Production

Austin, Texas.—The new statewide proration order for August promulgated by the Texas Railroad Commission on Monday, July 30, allows the production of 980,838 barrels per day.

This was a cut of 61,573 barrels per day from the order in effect on July 31, when the allowable for East Texas had mounted to 473,633 barrels per day.

One important change was made in the order shortly before it was released, allowing the production of 14,471 barrels per day for the Greta field in Refugio County. As first prepared, the order called for an allowable of 11,500 barrels per day for Greta, an increase of 1500 barrels over the allowable for the month of July. This was to be distributed among wells producing from the 5900-foot sand at 150 barrels per well until such time as the entire increase had been absorbed, after which these wells were to share equally in the 1500 barrel allowance. Shallow wells received no increase.

As finally issued, however, the order called for an increase of 4471 barrels per day. The deep wells in the 5900-foot sand were allocated 175 barrels each, and the remainder of the increase is to be distributed among the shallow wells in the field.

Commission Checking Bottom-Hole Pressures

Austin, Texas.—State Railroad Commission engineers have begun a series of pressure tests during the past week under the supervision of Gordon Griffin, chief petroleum engineer.

Tests of bottom-hole pressures in 34 key-wells in East Texas first claimed the attention of the engineering staff. The last series of tests were completed on June 8, and indicated an average bottom-hole pressure for the field of 1242 pounds. This was 17.5 pounds below the average reported on May 7.

Similar tests were also begun in both North and South Government Wells, where the commission's proration order is based on bottom-hole pressure exclusively. The last tests made in these fields showed a drop of 80 pounds in pressure since March 24.

» » THE WEEK'S NEWS « «
from All Fields

HIGH SPOTS IN BRIEF

WELL completions reported during the week show a difference of only three from the low figure of a week ago, further showing effects of drouth conditions throughout the principal producing sections of the Mid-Continent. Reports included 345 new wells completed, of which 235 were oil producers having an initial rating of 563,317 barrels, a low average against recent results, especially considering that 420,000 barrels of this new oil was in East Texas and 531,000 barrels in Texas, leaving little more than 30,000 barrels new production in all other sections. New starts totaled 266, indicating a loss in number of active drilling wells.

Oklahoma-Kansas

The most important development in Oklahoma was in the Fitts pool, 12 miles southeast of Ada, where two unusually large producers called attention to the possibilities of the area. One of the wells flowed 386 barrels an hour when opened and the other was making 190 barrels hourly through choke. The old Childers pool of Nowata County, which was first productive in 1908, turned up with a 70-barrel daily flowing well last week. It is thought the production is coming from a virgin sand, probably the Tucker.

In Kansas interest was centered in a wildcat test that was flowing by short heads. The well is located in northeastern Barber County, nine miles northeast of the Medicene Lodge gas field. This is the first oil production from the county.

East Texas

The Rusk pool, Cherokee County, received a severe setback when a dry hole was the result of a test offsetting the discovery well, which stopped flowing during the week. These developments apparently remove the area, at least temporarily, as a forerunner of a major producing district. Considerable productive acreage has been added to the East Texas field in recent weeks through progressive extensions scored in the northern sector.

Two important tests trying to extend the Cayuga field across the Trinity River into Freestone County were eliminated as probable oil producers when Woodbine sand carrying salt water was logged.

South Texas

The finding of a new deep sand in the Cole field, Webb and Duval Counties, is believed to be the most important Mirando district strike since opening of Government Wells pool. The size of the structure and type of production is expected to cause a heavy play. The well is flowing 45 barrels hourly through a small choke. The Sinton field, San Patricio County, looks slightly more promising since the showings encountered in a well 3500 feet west of an apparent failure. The Angelita field, same county, does not look as good as Sinton at this time. The Vanderbilt field, Jackson County, may have a second producing sand, 100 feet lower than the horizon from which the discovery well is producing.

North Texas

Important extensions to the Strawn lime and Bend producing horizons of Young County are expected as the result of showings in two semi-wildcats, which are in the process of completion.

Texas Panhandle

An important extension for the South Pampa district, Gray County, was in prospect last week by a well that developed a fishing job after 300 feet of oil had entered the hole. The north offset completion to small gas production in the Sunray sector, Moore County, gauged 350 barrels of high gravity oil in the first three hours.

Michigan

Completion of a 5,500,000-foot gas well in Belvidire township, Montcalm County, appears to have either opened a new gas pool or to be an eight-mile extension southeast to the production found in Hinton township of Mecosta County. Michigan has 140 drilling tests, of which about 40 are wildcats.

Rocky Mountain States

The Cut Bank field, Montana, had a record week, scoring six completions, four of which made better than 200 barrels daily. Two of the completions proved formerly doubtful territory of the town of Cut Bank.

Oklahoma City Pressure Drops 87 Pounds a Month

Oklahoma City.—In the north end of the Oklahoma City pool Westgate Oil Company et al's Carey 6, NW SE NW SE Section 34-12n-3w, was completed for 1374 barrels in 13 hours from Wilcox sand at 6329 to 6473 feet. It was also making gas at the rate of 19,800,000 cubic feet. Carey 3 on the same lease was at one time rated at better than 100,000 barrels daily. Larkins and Warr were building derrick for No. 1, CEL NW SE SE Section 34-12n-3w, 935 feet north of the south line and 790 feet west of the east line of the SE¼.

In the southern portion of the pool Phillips Petroleum Company and Shell Petroleum Corporation's Berg 7, NW NW SE SW Section 26-11n-3w, had Wilcox sand from 6582 to 6633 feet, shot with 44 quarts at 6596 to 6628 feet and made 114 barrels the first hour on gas lift.

One of the major operators in the field, through a series of bottom-hole pressure tests on key wells, has found a pressure decline of 87 pounds per month. The pool originally was thought to have had a formation pressure of approximately 2600 pounds. At one time gas was being wasted at an estimated rate of 500,000,000 cubic feet per day and considering the rigid proration rules that have been in effect almost since the beginning of development, gas energy has been declined at an abnormal and needless rate. Average formation pressure in the pool does not exceed 500 pounds at present.

Stella-Newalla Structure To Get Another Testing

Oklahoma City.—The Stella-Newalla structure, the west flank of which lies approximately 10 miles east of production in the southern portion of the Oklahoma City pool, is to have a second Wilcox sand test according to announcement of Ellison, Hollenback and Anderson-Kerr, who staked location for Wilson 1, C NW SE Section 27-10n-1e, seven miles southeast of Springrose Drilling Company et al's Edwards 1 which is now shut down after testing the Simpson section and producing several thousand barrels from what is believed Hunton limestone.

The surface structure, as worked by Kenneth Ellison, covers an area approximately 20 miles long and from five to nine miles wide and is one of the largest ever mapped in the Mid-Continent area. Wilson 1, the new location, is in the old Stanolind Oil and Gas Company, Amerada Petroleum Corporation and Slick-Urschel block that comprised 2720 acres taken under lease more than five years ago. The original block included the SE¼, Section 21; S½, Section 22, W½, Section 26; all Sections 27 and 28; N½, Section 33; NW¼, Section 34; and NW¼, Section 35 all in 10n-1e. Stanolind, Amerada and Slick-Urschel retain 1280 acres checkerboarded over the original block and have assigned the remaining 1440 acres to Ellison, Hollenback and Anderson-Kerr. Late in the week the latter had assigned one 80-acre tract to Magnolia Petroleum Company, three 80-acre tracts to F. C. Bauchens, and had pending a deal on one 80-acre tract with Phillips Petroleum Company. Contract depth is 6500 feet or to second Wilcox sand. Location is approximately on the axis of the fold as indicated by surface mapping, whereas, Springrose et al's Edwards 1 was on the west flank. Leases have been held solidly in the area for several years and most of the major and large independent companies are interested. Work is due to get under way within the next two weeks.

Shawnee Wildcat Makes Three-Hour Flow

Shawnee, Okla.—Stanolind Oil & Gas Company and Amerada Petroleum Corporation's Goodman 1, C SW NE NE Section 5-10n-4e, important wildcat test less than one mile from here, washed in through tubing and was shut in over night to see if it would build up pressure. Casing head pressure was 250 pounds at 7:00 a.m. August 2 when the well was reopened and responded with a flow of oil and water for three hours. Fluid was standing within 400 feet of the top of the hole and operators were unable to lower the level. It was reported to be approximately 70 percent fresh and salt water. The sand being tested is at 4405 to 4453 feet, the total depth. The test is located on a prominent "high" which has been played for several years and generally accorded an excellent chance for commercial production.

Commission Sets August Allowable for Oklahoma

Oklahoma City.—In a series of orders issued during the week the Oklahoma Corporation Commission set August daily allowable production at 480,100 barrels, allocated this amount among the various sources of supply and accepted voluntary proration agreements in three flush pools. Class A pools were allowed 123,592 barrels daily on a total estimated potential of 1,905,186 barrels; Class B pools, 143,233 barrels daily on a total estimated potential of 381,942 barrels; Class C pools, 14,523 barrels on a total estimated potential of 172,445 barrels; and Class D pools, 700 barrels on the basis of 50 barrels per well per day. Total allowable for the prorated pools is 282,048 barrels daily and for the unprorated pools, 198,052 barrels daily, including allowable for pools under voluntary proration agreements.

Estimated potentials as of August 1, 1934, percentage of potentials to be allowed during the month, and daily allowable are shown in the following tabulation:

Classifications—	Estimated Potentials	Aug. % of Potential	Aug. Daily Allowable
Class A Pools:			
Oklahoma City Wilcox	1,905,186	6a	123,592
Class B Pools:			
Oklahoma City Simpson	149,501	50a	38,000
Oklahoma City Fault Line	4,145	37a	1,350
Seminole et al	120,061	52	62,086
Maud	1,261	75	950
St. Louis	55,947	33	18,533
West Asher	1,517	94	1,423
Konawa	2,515	72	1,808
Sasakwa	1,261	61	771
Allen	10,995	65	7,158
Sasakwa Townsite	13,446	11	1,468
E. Earlsboro (Calvin)	5,218	26	1,381
Tatums	17,415	36	6,340
Fish (Cromwell)	2,805	70	1,965
Total	2,386,087		143,233
Class C Pools:			
Crescent	67,963	6.5	4,317
Lucien	90,000	9	8,633
Keokuk	13,760	9	1,295
Fish (Simpson)	722	38	278
Total	172,445		14,523
Class D Pools:			
Lincreek	b	b	500
Orlando	b	b	150
Lucien (Hunton)	b	b	50
Total			700
Unprorated areas	198,052c	100c	198,052
State total	2,661,770		480,100

a—Percentage not exactly representative due to underproduction allowances. b—No potentials established. Proration based on 50 barrels per well per day allowable. c—Includes Naval reserve, South Burbank and Chandler pools which are voluntarily prorated.

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Two Large Wells Attract Interest to Fitts Pool

Ada, Okla.—The high point of Oklahoma development during the week was reported from the Fitts pool, 12 miles southeast of here, where two unusually big wells were completed. These were the first large oil producers in the pool.

Early in the week, J. C. Shaffer Inc., et al's Hardin 1-A, NE NW SW Section 30-2n-7e, started flowing at the rate of 145 barrels per hour, and after being shut in over night produced 185 barrels the first hour, 189 barrels the second hour and 194 barrels the third hour. Top of the Viola limestone was logged at 3672 feet, Simpson dense at 3800 feet and Wilcox sand from 4069 to 4083 feet. Between base of the Wilcox sand and the total depth at 4210 feet the formation was shale, limestone, and dolomite with sand streaks showing oil. The section from top of the Viola to total depth shows partial saturation all the way.

The new well, which is the first big oil production in the pool, is producing through 2½-inch tubing. It is a twin to Hardin 1, which was completed several months ago flowing an estimated 75,000,000 cubic feet of gas from sand at 1360 to 1400 feet, but had to be cemented and abandoned at 2293 feet, when it blew out of control and formed a large number of craters.

Crosbie et al's D. Hardin 2, C NW SW NE Section 30-2n-7e, was the second big find of the week. This well had an initial flow of almost 200 barrels per hour through one-inch choke. Production is from Simpson sand, probably Wilcox, at 4280 to 4295 feet.

The well was tubed and washed in. The first hour it produced 180 barrels and increased to 108 barrels the next 30 minutes, flowing through tubing. During the next hour it yielded 386 barrels flowing wide open through tubing and casing, and 190 barrels the next hour flowing through the one-inch choke. It is three locations east and two north of Shaffer et al's Hardin 1.

Ed Moore et al, discoverers of the Fitts pool, had top of the Viola limestone at 3568 feet with 3,000,000 cubic feet of gas at 3666 feet in Weirick 2, C NE SE SW Section 29-2n-7e. Drilling was halted at 3700 feet after an increase of gas and a small showing of oil was had.

Langston Pool

Guthrie, Okla.—J. C. Shaffer, Inc., et el's Moss 1, C SW SW SE Section 11-17n-1w, north offset to the discovery well in the new Langston pool, nine miles northeast of here, was reopened at 7:00 a.m., July 28, and responded with a flow of 110 barrels. On the three succeeding days it yielded 89 barrels, 94 barrels and 97 barrels, respectively. Production is coming from Wilcox sand at 5104 to 5124 feet.

Old Childers Pool Yields Flowing Well

Nowata, Okla.—Interest was attracted to the old Childers pool in central Nowata County early in the week when Whitehill Oil Corporation's L. B. Johnson "E," 330 feet east of the west line and four feet north of the south line of the N½ SW NE Section 2-26n-16e, found sand from 632 to 663 feet and drilled to 670 feet, from which depth it started flowing at the rate of approximately 70 barrels per day with gas at an estimated rate of 70,000 cubic feet.

This is the first flowing well completed in the pool in many years and production apparently is coming from a virgin sand since Bartlesville sand has long been depleted of gas in sufficient quantities to enable a well to flow naturally. Operators failed to get Bartlesville sand at the expected depth and think production may be coming from the Tucker sand. It is offset by closely drilled wells on all sides.

Production was first found in the Childers pool in 1908 and it has been continuously produced since that time. Oil has been found in the "Big Lime," Oswego limestone, and the Bartlesville and Burgess sands. First flow was made through 6¼-inch casing but the well was being tubed to conserve gas energy.

Crescent Production Potential Is 70,000 Barrels Daily

Crescent, Oklahoma — Six-hour gauges on 15 wells in the new Crescent pool of western Logan County, show a potential of 69,119 barrels. Study of the gauges in comparison with reported initial production shows nine wells to have increased in their estimated 24-hour capacity and six wells with a small decline. Most of the wells in the pool are completed through tubing and concerted effort is being made to conserve gas energy. Drilling, with three exceptions, has been done entirely on the one well to 40-acre plan.

Data of completion, reported initial production, six-hour gauge and 24-hour potential for each of the 15 wells are shown below:

Company and Farm—	Well No.	Location	Date of Completion	Initial Production	Six-Hour Gauge	24-Hour Potential
Gypsy, Campion	1	27-17n-4w	3- 6-34	5,198	1,147	4,588
Gypsy, Campion	2	27-17n-4w	6-12-34	5,235	1,343	5,372
Gypsy, Good	1	27-17n-4w	11-15-33	2,848	723.6	2,894
Carter et al, Herron	1	28-17n-4w	3-23-34	7,240	1,766	7,064
Carter et al, Herron	2	28-17n-4w	6-17-34	9,696*	2,552	10,208
Carter et al, Miller	1	28-17n-4w	7-26-33	5,371	1,112.2	4,449
Continental, McConnel	1	28-17n-4w	11- 1-33	5,708	1,201	4,804
Sinclair-Pr., Phillips	1	28-17n-4w	11-16-33	536	257	1,027
Texas, Denny	1	33-17n-4w	12-21-33	4,377	1,226	4,904
Amerada, Denny	1	33-17n-4w	3-19-34	3,120	1,007	4,028
Carter et al, Walker	1	33-17n-4w	10-18-33	2,899	701	2,804
Mid-Continent, Campbell	1	33-17n-4w	4-25-34	2,655	915	3,660
Eason, Katschor (1)	2	34-17n-4w	5- 1-34	1,508	891	3,564
Gypsy et al, Knowles	1	34-17n-4w	2-22-34	5,389	1,001.6	4,006
Gypsy et al, Knowles	2	34-17n-4w	4-27-34	5,092	1,436.66	5,747
Totals				66,872		69,119

*All other initial production based on 24-hour gauge. Carter et al's Herron 2 based on 12-hour gauge times two.

Thirty Oklahoma Completions Made

Tulsa.—Activities in Oklahoma were reduced further during the week when 25 first reports were made and 30 wells completed. The completion list included 21 oil wells with combined initial production of 12,640 barrels, and nine dry holes, which involved the drilling of 80,542 feet, including 92 feet in one old well drilled deeper.

Official weather bureaus in Tulsa and Oklahoma City report July the driest July since 1923. Figures from the latter observation point are approximately representative of the state. Rainfall for the month was .13 of an inch, the same as for July, 1918 and July, 1923. A short precipitation on the afternoon of June 30 was recorded at .02 of an inch and on July 1, .11 of an inch. During the 29 days between these two dates no recordable rain fell. As a result of the intense heat

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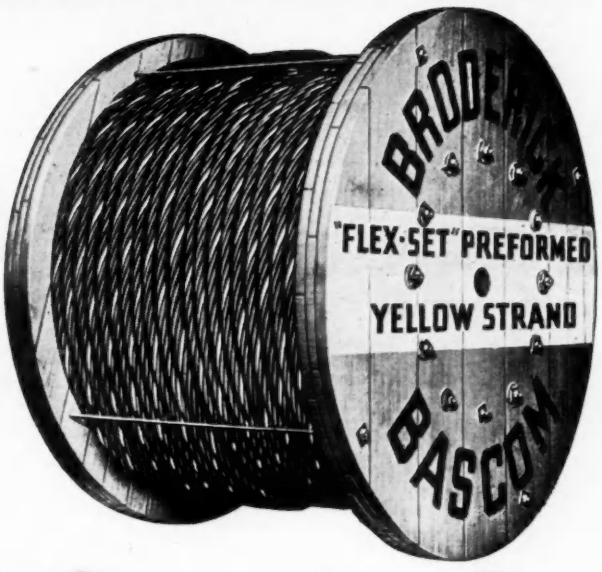

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and severe drouth first reports have fallen below completions for the past four weeks, many tests are shut down.

Reports of the week were as follows:

Company, Well and Location	Init. Prod. Bbls.	Depth
CREEK COUNTY—		
Johnson Oil Ref. Co., Heneha 3, ne sw se 11-19n-9e	*	1240
A. R. Edmonson, Jones 1, sw sw nw 34-18n-8e	*	2707
Oklahoma Gasoline Plants, Hawkins 1, nw ne sw 10-18n-8e	*	2903
Illinois Ref. Co., Shepherd 2, se sw nw 13-17n-9e	*	2400
Bay State Oil Co., S. Lasley 2, se se nw 3-17n-8e	125	1401
JEFFERSON COUNTY—		
Farlyn Oil Co., Seay 20, se se nw se 3-7s-5w	50	1260
P. A. Wiley et al, Oscar Seay 2, sw nw nw sw 35-6s-5w	*	1607
O. V. Beck, W. D. Seay 4, se sw nw se 34-6s-5w	75	1588
Bridwell Oil Co., Barnett 2, ne sw ne 30-6s-5w	53	1528
LINCOLN COUNTY—		
Magnolia Petroleum, Benedict 4, se sw nw	2057	5100
OKLAHOMA COUNTY—		
J. J. Hardin et al, Simpson 1, nw sw se 34-12n-3w	4053	6495
OSAGE COUNTY—		
Champlin Ref. Co., 6, nw ne ne 15-25n-6e	103	2941
Norbla Oil Co., 1, nw nw se 31-24n-7e	*	2860
Champlin Ref. Co., 18, sw ne se 16-24n-7e	275	2650
6, ne nw nw 16-24n-7e	680	2667
5, nw ne nw 16-24n-7e	456	2685
Central Petroleum Co., 14, cw½ e½ sw 16-22n-9e	20	2725
Devonian Oil Co., 1, ne se se 30-21n-10e (owdd)	6	2065
PONTOTOC COUNTY—		
Delaney, Craddock 2, ne ne ne 25-2n-6e	260	4448
Fleetborn, Wagner 1, ne se se 18-2n-7e	*	2465
Mid-Continent Oil Co., Milligan 1, se ne ne 25-5n-4e	1085	2346
POTTAWATOMIE COUNTY—		
Carter Oil Co., Smith 1, cw½ se se 14-11n-6e	615	4525
Blackwell O. & G., Waylahpeasee 1, sw sw sw 7-9n-5e	720	4167
SEMINOLE COUNTY—		
Magnolia Petroleum, Williams 1, se sw nw 18-8n-7e	224	3263
Summit, Lozier 1, nw sw nw 20-9n-7e	605	4137
Carter Oil Co., Pipkin 1, cnl se nw 2-10n-6e	1089	4139
STEPHENS COUNTY—		
W. W. Ports et al, Hulshizer 1, ne ne sw 9-1s-8w	*	2503
Mitchell & Covitt, W. T. Speegle 1-A, se se sw sw 10-2s-5w	*	1085
Merco O. & G. Co., Trout 2, sw nw nw sw 1-2s-8w	17	1414
WAGONER COUNTY—		
Mainard, Moore 6, cel nw ne 22-7n-8e	72	1201

*Failures; †Junked; ¶Million cu. ft. gas.

Edmond Pool

Edmond, Okla.—Mid-Kansas Oil & Gas Company had not succeeded in fishing tools from Dahl 1, C SE SE SE Section 31-14n-3w, west offset to the discovery well in the Edmond pool. Pressures up to 5500 pounds had been applied to the hole and tools were moved nearly to the top of the hole at one time. It is estimated to be a large gas well from Wilcox sand at 6385 to 6393 feet.

Large South Burbank Wein Is Completed

Fairfax, Okla.—Carter Oil Company and Empire Oil & Refining Company completed one of the largest wells in the South Burbank pool during the week when Higdon 4, C SE SE NE Section 3-25n-6e, came in flowing at the rate of 140 barrels an hour and placing 2201 barrels of oil in the tanks during the first 20 hours. Production is coming from Bartlesville sand at 2801 to 2856 feet. Sand with a showing of oil and gas was encountered between 2780 and 2785 feet, and broken sand from 2785 to 2801 feet, the latter depth being called top of the Bartlesville.

Carter Oil Company et al's Osage 5, C SW SE SE Section 10-25n-6e, had Bartlesville sand from 2825 to 2892 feet and, swabbed 40 barrels in 24 hours. It was to be shot first with 60 quarts. Phillips Petroleum Company's Osage 7, C NW NW NW Section 15-25n-6e, topped Bartlesville sand at 2827 feet and set six-inch casing at 2826 feet.

In the next township north Magnolia Petroleum Company et al set six-inch casing at 2781 feet and were drilling ahead in De Noya 2, C SW NW SW Section 11-26n-6e, near production in the old Burbank pool. This test will partially determine whether or not Bartlesville sand production in the old pool will connect with production from that sand in the South pool.

Kansas August Allowable Is Set

Wichita, Kan.—The Kansas Corporation Commission refused to change the method of proration, retaining in its order for August, the rules and regulations previously existing. State allowable production was cut from 134,500 barrels to 131,200 barrels daily to come within the federal allocation for the month.

In an order signed July 30, 1934, the commission shows a total of 19,239 producing wells, having a total potential of 344,970 barrels. Of this number 14,026 wells fall in the 0 to 5 barrels class, and 2773 wells in the 5 to 10 barrels class, leaving 2440 wells with an average daily yield between 10 and 1400 barrels. In the 1000 to 1200 barrels class only three wells are listed and in the 1200 to 1400 barrels class only seven wells. Largest group potential is in the 800 to 900 barrels class in which 70 wells have a combined potential of 60,245 barrels daily. Percentages of allowable range from 100 percent for the 0 to 5 barrels class to 13.24 percent for wells averaging between 1200 and 1400 barrels daily.

Osage Wildcat Showing Water

Ponca City.—Empire Oil & Refining Company and Sinclair Prairie Oil Company were shut down awaiting orders at Osage 1, NE SE NE Section 3-25n-3e, a wildcat test in the Big Bend country of western Osage County. After finding showings of oil and gas in several of the upper horizons the test was carried to 3824 feet with a showing of water in the last two feet of formation. Base of the Mississippi limestone was reported at 3810 feet with hard white dry sand from 3810 to 3812 feet. The bailer was run four times and returned to the surface full of water each time.

Kansas Completes Twenty Four Wells

Wichita, Kansas.—Kansas operators made 24 first reports and had 19 completions that included 16 oil wells with a combined initial production of 7015 barrels and three dry holes, Footage for the week was 47,747 feet, including 52 feet in three old wells drilled deeper. Reports for the week were as follows:

Company, Well and Location	Init. Prod. Bbls.	Depth
CHATAUGUA COUNTY—		
Griffen-Bell. Julian 2, cnl se nw 12-32s-10e	10	1676
COFFEY COUNTY—		
Ackman, Isch 1, nw sw ne nw 26-22s-13e	*	1887
GREENWOOD COUNTY—		
McGines, Sample 1, ne ne se 16-25s-10e	*	2125
HARVEY COUNTY—		
McBride, Inc., Fresan 1, nw nw nw sw 20-22s-3w (owdd)	950	3524
Stanolind O. & G. Co., Froese 1, sw sw nw 20-22s-3w (owdd)	552	3516
Froese 2, nw sw nw 20-22s-3w (owdd)	504	3515
McPHERSON COUNTY—		
Palmer, Nardling 1, se se sw 19-18s-2w	339	3426
Helmerick & Payne, Inc., N. W. Russell 6-B, sw ne ne 23-19s-2w	85	3385
Roth et al, Swanson 3, se sw ne 13-19s-3w	520	3012
Vernon Oil Co., Bengtson 1, se nw ne 13-19s-3w	136	3013
Gypsy Oil Co., Stucky 4, ne nw se 33-20s-3w	27	3498
RENO COUNTY—		
Empire Oil & Ref. Co., Haury 1-B, sw sw sw 1-23s-4w	136	3631
Frost et al, Bergen 1, ce½ ne ne 2-23s-4w	*	3665
Barnsdall Oil, Sabin 2-B, sw sw ne 11-23s-4w	1147	3577
Gypsy Oil Co., Kiehbred 4, cnw ne 35-23s-4w	1355	3597
RICE COUNTY—		
Empire Oil & Ref. Co., Proffitt 1, nw se se 6-20s-9w	760	3268
Heckel 6, sw nw sw 18-20s-9w	435	3343
ROOKS COUNTY—		
Phillips Petroleum, Delta 1, csw sw 31-8s-17w	44	3317
WOODSON COUNTY—		
Woodson Pipe Line Co., Scott 1, nw nw nw sw 23-26s-14e	15	1275

*Failures; †Junked; ¶Million cu. ft. gas.

New County Added to Kansas Oil Producing List

Wichita, Kansas.—Another county was added to the Kansas oil production list late in the week when Lario Oil & Gas Company et al's Whelan 1, C NW Section 32-31s-11w, nine miles northeast of the Medicine Lodge gas field and 26 miles south of the Cunningham pool, in northeastern Barber County, encountered pay from 4355 to 4428 feet and started flowing at heads of six minutes duration about every two hours, but the interval between heads was gradually diminishing and the well was expected to flow steadily without further drilling. Production is from chat horizon that yields in many of the western counties.

Barber County has had gas production since early in 1927 and has been the scene of the drilling of a large number of dry holes but has not heretofore produced oil.

Stearns and Streeter made location for Beardsley 1, NW NE SW Section 22-13s-14w, just north of Russell townsite and a mile east of Palmer's new siliceous lime pool, in western Russell County.

El Dorado Refining Company entered in the wildcat play during the week with the announcement of intention to drill Stratman 1, SW SE SE Section 32-14s-11w, four miles south of the town of Dorrance and eight miles southwest of the town of Wilson in southeastern Russell County. Nearest production is in the Sellens pool, 14 miles to the southwest.

Tom Palmer completed Borrell 2, SE SE NE Section 21-13s-14w, producing initially 292 barrels from siliceous lime at a total depth of 3298 feet. Borrell 1, a west offset to the discovery well, produced 692 barrels initially. It was recently acidized and production increased to 1116 barrels.

Ickes Is Asked to Revise "Hot" Oil Order

Tulsa.—The executive committee of the Kansas-Oklahoma division of the Mid-Continent Oil and Gas Association, in a meeting held Wednesday, August 1, adopted a resolution asking Oil Administrator Ickes to revise the "hot" oil order as it applies to the Oklahoma City area. Under present rulings this area is extended to a distance of 35 miles which includes several of the recently discovered pools in the central portion of the state. It is requested that the distance be reduced to 15 miles so as to include only Oklahoma City proper. The resolution further requests the increase of basic sediment allowance from two to three percent and to advance the reporting date from the fifth to the fifteenth of the month following running of oil.

Rice County Well Makes Salt Water

Wichita, Kansas.—Sinclair Prairie Oil Company's Sharpe 1, C SE NW NE Section 7-20s-9w, in the Sharpe area of southwestern Rice County, topped siliceous limestone at 3261 feet and had four bailers of water per hour at 3322 to 3325 feet, the total depth. It was plugged back to 3312 feet and prepared for acid treatment.

In the Burrton area of northeastern Reno County National Union Oil Company's Ackley 1, C SE SE Section 14-23s-4w, topped chat horizon at 3252 feet, had three to five million cubic feet of gas at 3325 feet and was estimated at 20,000,000 cubic feet when drilling was stopped at 3330 feet.

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East Texas Field Potential Declines Eight Percent

Tyler, Texas.—Allowable production in the East Texas field was lowered from 473,000 barrels to approximately 400,000 barrels daily effective 7 a. m. August 1, through a downward revision of potentials of key wells and a reduction of one half of one percent in the rate of hourly flow of all wells having a proration quota above the marginal well level of 20 barrels daily. The potential flow credited to all wells was reduced about eight percent as result of regauges taken by the engineering staff of the Texas Railroad Commission between July 6 and 20. A compilation on July 26 placed the combined hourly flow of 13,999 wells at 9,651,499 barrels, or at rate of 231,635,976 barrels daily.

The revised proration schedule permits wells having an hourly potential flow rating of more than 500 barrels per hour to produce four percent of its hourly rating each day. All wells having a rated potential of 500 barrels per hour, or less, are automatically classed as marginal wells and are given a flat quota of 20 barrels of production per day. There are now in excess of 2175 wells in this classification. During the month of July the wells were prorated on a basis of 4½ percent of the hourly potential, and from January 1 to July 1 it was five percent.

Only 50 wells were used by the commission in arriving at the revised hourly potential rating of the field, or approximately one sixth of the total originally used in the preparation of a contour map of open flow potentials. Readings were taken on 67 wells, but 17 were thrown out because of being improperly taken, or through failure of said wells to flow the full two-hour period used as a basis in zoning the field. Since a sharp reduction in well potentials was recorded, operators are entering protests against the new potential contour map, claiming that 50 key wells are not adequate to arrive at the flowing capacity estimate on some 14,000 wells scattered over an area of about 118,000 acres.

It is reported that a number of the original 300 key wells designated for open flow tests now are incapable of making a steady flow for a two-hour period, while a greater number can not yield sufficient oil to get out of the marginal well classification.

The oil and gas producing zone in the East Texas field is badly scarred from withdrawals to date in spite of the opnion of qualified engineers and geologists that approximately 2,00,000,000 barrels of oil remain to be produced. Several thousand wells are reputedly "dead," and it is alleged their earned allowable is being taken from other wells on the property, contrary to specific rules against this practice. The weighted average reservoir pressure at the 3300-foot sub-sea contour is expected to go to a new low level when the next general reading is taken August 12, as it had dropped to 1229 pounds on July 12, or within six pounds of the low level reached in July, 1933, when production was averaging about 1,000,000 barrels daily.

The field has only one key well capable of yielding 1000 barrels of oil per hour, and only six that proved better than 950 barrels per hour, according to gauges taken under the direction of Harry Miles, head of of the engineering staff of the commission. Humble Oil & Refining Company's Jessie Thompson 6, located on 82.54-acre lease, John Smith Survey, Rusk County, and east by north of Overton, proved to be the most prolific key well in the field in registering an hourly potential of 1,004.02 barrels, flowing via seven-inch casing and 2½-inch tubing and three four-inch flow lines. It earned an allowable of 40.1608 barrels daily, and all other wells within its contour will be allocated the same proration quota.

Stanolind Oil & Gas Company and Simms Oil Company's O. J. Albright 8, located on 90-acre lease, W. H. Hart Survey, Gregg County, was the second largest key well, having averaged 991.85 barrels per hour during the two-hour gauge through seven-inch casing; two-inch tubing and three four-inch flow lines. In the same area, Tide Water Oil Company's Lake Devernia 25 made 982.745 per hour. Grisham-Hunter Corporation's T. P. Railway fee 1-A, Block 49, M. Dillard Survey, gauged 977.285 per hour, thereby earning a high allowable for the Gladewater townsite area. The Bay Oil Corporation's B. B. Peterson 6, J. S. Carruthers Survey, located on the Gregg-Rusk County line, averaged 953.245 per hour, using two-inch tubing, with 90 pounds back pressure on the casing. Humble Oil & Refining Company's J. H. Silvey 5, G. Berry Survey, located south of the most productive key well, was given a potential rating of 968.595 barrels hourly.

Two Cayuga Extension Attempts Are Failures

Palestine, Texas.—Two tests, trying to extend the Cayuga field across the Trinity River into Freestone County, were eliminated as probable oil producers when Woodbine sand carrying salt water was logged at the normal water level for the field proper. American-Liberty Oil Company's Trinity Farm 1, located near the most easterly corner of the G. B. Bonham survey, logged first sand at 4042 feet, or 3787 feet below sea level, and was coring below 4110 feet late last week without trace of oil or gas. Several water sands were reported. Trinity Farm Securities Company (E. P. Harwell) Fee 1, located in the most easterly northeast east corner of the R. M. Williamson survey, proved to be the most promising of the two outposts. It was preparing to make a drill stem test at 4044 feet after logging water sand at the level oil production was expected. It is about 1¾ miles southwest of nearest production in the field. Top of the Woodbine section was tentatively placed at 3888 feet, with an elevation of 253 feet. Sufficient sand showing gas was logged above the water table to give promise of making a gasser. The owners plan to plug back and try to complete as a gas producer.

Tide Water Oil Company and Texas Seaboard Oil Company's M. H. Sullenberger 1, northeast part of 363.6-acre lease, Wm. Snider Survey, and about midway between the above test and producing wells in the field proper, was nearing the Woodbine zone late last week after topping the Pecan chalk at 2200 feet and Austin at 3132 feet, with an elevation of 259 feet.

Standard rig and pumping equipment has been ordered installed by Stanolind Oil & Gas Company to complete its W. L. Tubbs 1, outpost producer on the northeast edge of the Cayuga field, after failing to score a steady oil flow from Woodbine sand at 4068-4076 feet, with the hole bottomed in shale at 4088 feet. Swabbing failed to benefit the well which makes an occasional head of about 50 barrels, with some salt water showing. It is

the first pumper for the field, and is about one-half mile northwest of the first failure, although it is a north offset to a producer drilled by Barnsdall Oil Company.

Tide Water Oil Company and Texas Seaboard Oil Company's Tucker Royall & Adam Cone 1, northwest outpost test, has cemented 5 3-16-inch pipe above gas sand at 4030 feet after failing to show for an oil producer in drilling through the Woodbine section to Georgetown at 4666 feet. It is the deepest test drilled in the area. A hard porous sand cored at 4045 feet, or 3726 feet below sea level, is being counted upon to yield gas production.

New Rusk Pool Receives A Series of Set-backs

Palestine, Texas.—The Rusk pool, Cherokee County, was temporarily removed from the horizon as the forerunner of an important oil producing area in the Woodbine sand belt of East Texas when T. J. Wood, Young and associates' New Birmingham 2, an offset to their discovery well, encountered salt water in the sand and issued plugging orders at 5163 feet. This failure entered the Woodbine section at about 5138 feet, and offered no encouragement for oil or gas production.

This new test for the Rusk area was drilled one location southwest of the above operators' discovery well on the New Birmingham Development Company 161-acre lease, and checked 13 feet lower on top of the Pecan chalk and 50 feet lower on first Austin chalk. The discovery well was completed originally on the morning of June 3 at 5137 feet, or 4705 feet below sea level, flowing into pits. First gauge in tanks taken June 10 credited the well with flowing 20 barrels of 40 gravity oil per hour through 5/16-inch choke. Salt water began appearing before the end of the first day, with volume of cut oil ranging up to 20 percent on three quarter-inch choke. The well was killed June 15 to plug back, side track through casing about 180 feet off bottom. In re-drilling the sand in a new hole the pay was logged at 5121-5124 feet, with an elevation of 432 feet. The well was restored to production June 28, flowing 63 barrels oil per hour through three quarter-inch choke, with only a trace of water. However, salt water again appeared two days later, ranging up to 10 percent.

The discovery well quit flowing early this week. It was kicked off with difficulty a few days later, and gauged 325 barrels fluid daily via quarter-inch choke, showing 15 to 20 percent basic sediment and water.

Erratic performance of the original well completed by Wood and associates served to checkmate an aggressive drilling campaign contemplated by the numerous major and independent units holding lease protection in the area. However, lease bonuses soared to a high level of $1000 cash and a like amount payable out of oil just prior to the first appearance of salt water with the production, and were heading for higher levels when the upset took place. Absence of any appreciable amount of structural relief for the area, based on correlations with dry holes to the west and southwest caused a number of geologists to refuse to recommend lease and royalty purchases when prices climbed above reasonable levels.

Territory about 2½ miles south of the Rusk area discovery well is being explored by Walter L. Goldston et al's Southern Pine Lumber Company 1, NWc of north 80-acre lease, N. Newton Survey, and late last week it was nearing the first chalk horizon.

Cherokee County is the most active wildcat center in the East Texas Woodbine sand belt, having gained this popularity largely on the strength of a widespread supposition that the Rusk area opened up a new production trend from the East Texas field. Two closely spotted wildcats are now drilling on a single structure between Ponta and Lone Star, including the South Gulf Oil Corporation's Joe Bailey 1, center of 80-acre lease, L. Rhodes Survey A-724, with top of Pecan chalk at 3125 feet and first Austin chalk at 3878 feet, with an elevation of 386 feet. Leon English and H. C. Hilhoan Drilling Company's O. R. Perkins 1, northwest part of 164-acre tract, J. M. Montez Survey, was drilling below 2500 feet. Both tests are west of an area that was given a series of tests in the Blossom sand by J. A. Colliton, California operators, and associates in 1923 to 1925, and by the late Col. A. E. Humphreys in 1926.

Arch Rowan, Roy Nichols and Simms Oil Company are scheduled to start drilling shortly on a 5000-acre block in eastern Cherokee County near the southwest corner of Rusk County, having made location on the C. V. Gilbreath 60-acre tract, H. M. Brewer Survey, about one mile northwest of Reklaw. Their geological report on the area reveals the presence of a fault on the north with a thinning of the sand section against the shoreline of the basin on the east.

A race for production in the Trinity sand horizon along the west flanks of the Mexia and Corsicana-Powell fault zone fields is now being staged by two groups of operators. In the latter area, R. L. Wheelock, J. L. Collins and associates' I. N. Cerf 1 was coring Glenrose sand below 5065 feet, with a stain and odor of oil reported. Previous tests to this horizon along the fault zone have encountered similar evidence of production, but never in commercial quantities. In the Mexia area, Peyton Brothers et al's Jake Steubenrauch 1, located about 1000 feet west of the fault, or the same distance as the above test, has made exceptionally good time in drilling below 3200 feet after spudding July 24. Surface casing, consisting of 12½-inch pipe, was cemented at 180 feet. Austin chalk was logged at 2760-3139 feet, according to W. A. Reiter, Mexia geologist in charge of the operation. Situated on the downthrow side of the fault, Steubenrauch 1 is scheduled to cut the fault below the Georgetown lime section and between 4500 and 4750 feet.

Interest in the north portion of the Woodbine belt is now centered on the Franklin County wildcat test of Humble Oil & Refining Company, Ed. B. Hopkins, E. DeGolyer and Petroleum Finance Corporation on the M.&P. Bank (David) 200-acre tract, John Askey Survey. This wildcat is exploring a faulted structure outlined by a series of geophysical surveys, with a complete closure on the east and west, according to reports. First Woodbine sand was logged at 3060 feet, with an elevation of 365 feet. Drilling had progressed below 3135 feet without any evidence of oil or gas in the sand section.

East Texas Has But 61 Completions in Week

Tyler, Texas.—The East Texas field accounted for 61 completions, all oil producers, during the past week, as compared to 95 the previous week. This slump was due in part to the rig builders' strike staged on July 5-11, inclusive, as only a fraction of the usual number of derricks were erected during the walkout period. Field work has since been showing signs of gaining in volume, although the reduction in the proration allowable of all wells, except marginal producers, on August 1 may discourage some lease owners from starting additional tests.

Six or more of the completions list for the past week will require pumping, or air-lift equipment to make their production allowables. These wells are

scattered along the east flank of the structure and in the low pressure zones.

Detailed list of completions in East Texas field during the past week follows:

Company, Well and Location	Init. Prod. Bbls.	Depth
JOINER AREA—		
R. H. Dearing & Son, A. P. Finney 8 (40-ac)	2000	3620
W. H. Gant-Wegener-Garvin, J. N. Hale 3 (139-ac)	500	3610
Gulf Prod. Co., Walter Shaw 4 (36.58-ac)	1000	3726
Humble, M. C. Thompson 11 (126½-ac)	9600	3641
John W. Turner 25 (400.22-ac)	3600	3749
Augusta Wilson 5 (58.61-ac)	8000	3696
Hunt Prod. Co., V. E. Reid 10 (120-ac)	600	3717
Lide-Tayloe Oil Co., C. Young 5 (40-ac)	3600	3750
Axel McCutchin et al, Stone 2	7200	3771
M. H. McMurrey, Tr., Turner 1	7000	3802
Mid-Kansas, H. C. & G. W. Burton 19 (254.44-ac)	8000	3664
Miller Prod. Corp., Bradford 2 (34-ac)	3000	3630
T. J. Northrup et al, Ras Redwine 2	960	3580
Octo Oil Corp., W. H. Frederick 4-A	250	3671
John Owen, Tr., T. O. Wright 2 (5-ac)	8800	3679
E. L. Pinkston et al, Fee 2	750	3591
Lenora Sneed et al, Salem Church 4 (2-ac)	7000	3754
Stanolind O&G Co.-Pure Oil Co., R. A. Moores 26 (251.46-ac)	500	3620
Sun Oil Co., R. J. Hendon 10 (119.41-ac)	500	3598
Sutton & Hawkins, M. E. Church-Smith 5 (18-ac)	8600	3796
The Texas Co., Allen Kersh 16 (211-ac)	6500	3633
KILGORE AREA—		
J. Beren et al, M. Kennedy 3 (20-ac)	5700	3699
Cal-Tex Corp., L. D. Crim 8 (50-ac)	8500	3564
Devonian Oil Co.-Gulf, Motley 28 (542.1-ac)	6000	3772
I. E. Dodwell et al, L. Alexander 1 (4-ac)	1000	3582
Gulf Prod. Co., C. Brown 26 (254.65-ac)	6500	3505
M. Charles 8 (88.59-ac)	7500	3605
C. E. Christian 10 (91.97-ac)	8700	3718
C. E. Christian 16-A (164-ac)	9000	3623
A. Nichols 7 (52.87-ac)	5800	3683
Humble, S. S. Laird 54-B (568.53-ac)	7500	3640
E. M. Jones et al, L. D. Crim 2 (10-ac)	5000	3555
Louisiana Oil Ref. Corp., H. Mayfield 6 (40-ac)	8000	3700
C. H. Lyons et al, F. J. Richards-Shell 2 (150-ac)	50	3607
Magnolia, Della Crim 10 (50-ac)	9100	3640
H. P. Leverett 5 (38-ac)	7800	3735
John Radford 26 (252-ac)	9000	3625
Nat'l Oil Co., L. Martin 3 (20-ac)	8400	3704
Shell Pet. Corp., W. W. Elder 23 (196-ac)	8600	3611
LONGVIEW AREA—		
Arkansas Fuel Oil Co., W. T. Burnside 27 (209-ac)	12,000	3502
Atlantic Oil Prod. Co., J. M. Moore 57 (434-ac)	10,000	3542
H. W. Black et al, I. M. Burroughs 3 (30-ac)	11,500	3710
Conservative Oil Co., B. Victory 12 (100-ac)	7000	3687
Cox & Jake Hamon, Fee 12 (73-ac)	9800	3589
Geo. L. Culver et al, R. N. Wood 1	8100	3626
Eastern Texas Pet. Co., T. J. Dunbar 3 (169-ac)	750	3667
Faith Oil Corp., J. C. Barrett 11 (140-ac)	5000	3683
Gilcrease Oil Co., A. Christian 5 (31-ac)	10,500	3624
Gulf, A. Neeley 9 (49.44-ac)	4200	3530
Humble, J. M. Adams 4 (100-ac)	7800	3487
W. R. Hughes 31 (245.21-ac)	7000	3637
A. O. Phillips 8	8100	3695
I. D. Smith 24 (245.98-ac)	6200	3647
T. D. Humphrey et al, G. W. Dunbar 1 (104-ac)	500	3587
Iowa-Payne Oil Co., J. W. Akin 5 (20-ac)	12,000	3590
Island Oil Co., J. W. Akin 6 (28¼-ac)	9000	3565
Magnolia Pet. Co., Todd-Stinchcomb 9 (111-ac)	9500	3587
Margay Oil Co., Rosa Corbin 7 (55-ac)	10,000	3560
Oil Inc. (Gilliland-Hoffman), W. M. Callum 4 (20-ac)	9600	3552
B. F. Phillips et al, L. P. League 4-B (24-ac)	6000	3646
Sinclair Prairie, W. H. York 6 (86.45-ac)	8800	3597
W. H. York 7 (86.45-ac)	8500	3580
H. R. Smith, Inc., W. A. Bauknight 8 (70-ac)	8700	3612
Yount-Lee Oil Co., J. C. & R. S. McKinley 4-E (56.67-ac)	7700	3606
ANDERSON COUNTY (Cayuga Field)—		
Stanolind O&G Co., W. L. Tubbs 1 (29.17-ac)	50	4088
VAN ZANDT COUNTY (Van Field)—		
Humble O&R Co., E. E. Carroll 6 (98-ac)	3000	2938
C. L. York 4	7	3111
John D. Wrather et al, G. W. Carter 3	*	3026
Shell Pet. Corp., B. M. Fowler 4 (22¼-ac)	10,000	2951
C. C. Curtis & J. E. Winans, E. Daniel Johnson 1	†	2966

*Failures; †Junked; ¶Million cu. ft. gas.

West Central Texas Has 21 Completions

Ranger, Texas. — Twenty-one completions in West Central Texas were reported during the past week, including 10 dry holes and 11 oil and gas producers. This activity was confined to small companies and operators.

Completions in West Central Texas during the past week follow:

Company, Well and Location	Init. Prod. Bbls.	Depth
CALLAHAN COUNTY—		
Holmes Oil Co., A. R. Kelton 5, Sec. 148	*	815
Oplin O&G Co. (H. H. Adams), Irwin 1, Sec. 349	50	4491
A. L. Thomas & C A. Lawson, C. V. Thomas 2	*	1250
Ungren & Frazier, Jackson 2-B	35	916
COLEMAN COUNTY—		
Anzac Oil Corp., W. D. Allen 2	¶5¼	1121
Ira A. Guffey, B. B. Fowler 3, Lot 40	*	1632
Hines et al, W. E. Haynes 1	*	1261
H. Minnister et al, W. S. Thompson 1	*	2352
Walton et al, J. B. Shelton 1	*	2435
PALO PINTO COUNTY—		
Palo Pinto Oil Corp., E. S. Brittain 2	¶4	3053
SHACKELFORD COUNTY—		
C. Atkinson et al, W. G. Webb 1	*	875
Callihan & Oyster, G. R. Davis 1, Sec. 3	*	1767
Charter Oil Co., J. P. Morris 2-A, Sec. 200	60	1598
J. E. Davis et al, R. B. Elliott 1	*	685
Lowe & Delaney, Alexander 7	15	867
J. L. McMurry et al, Mathews 4	40	811
W. M. Reed et al, W. E. Muse 1, Sec. 808	*	710
Reynolds & Richardson, Mathews 13	¶2	1230
Mathews 14, Sec. 31	5	1120
Roeser-Pendleton, Inc., Dawson 7	50	1616
Worth Pet. Co., Jeter 5	35	926

*Failures; †Junked; ¶Million cu. ft. gas.

Texas Drilling Permits Register Sharp Decline

Austin, Texas.—A sharp decline in permits to drill new wells in Texas was recorded last week, when a total of 194 were filed. The week before the total was 305.

Most of the decrease was in the East Texas field, where the commission allowed only 67 new wells. There were 33 in Gregg County, 31 in Rusk, two in Smith and one in Upshur County.

In North Texas 43 permits were filed, keeping this district in the second place position it has maintained for several months.

Gulf Coast operators obtained permits for 20 wells, and there were 28 permits granted in the Southwest Texas district.

Extensions Promised For Young County Area

Wichita Falls, Texas.—Two semi-wildcat tests in the Bend and Strawn lime horizons gave promise of affording important extensions for Young County areas during the past week. Cordova-Union Oil Corporation's M. K. Graham 1, NWc SW B. B. B. & C. Ry. Survey, A-36, was showing for a commercial oil producer in sand section of the Strawn at 3640-3659 feet after casing off an estimated flow of 5,000,000 cubic feet of gas at 2710 feet. A string of seven-inch was set but not cemented at 2965 feet because of this gas, and plans are to lower pipe to shut off salt water and cavings before trying for a production test of the new pay zone, which checks slightly higher than the oil and gas horizon found by Amon G. Carter et al's Rubenkoenig 1, located about one mile to the northwest.

Pitzer & West, pioneer users of the present day method of treating wells with acid in the lime belt of West Central Texas, are making a production test of their T. J. Gardner 1, SWc Section 614, T. E. & L. Co. Survey, after treating Bend lime with acid at 3820-4114 feet. This test is about two miles northwest of the Horal-James field, located in north central part of Young County, and was given a shot of 500 quarts of nitro prior to the injection of the acid. No estimates are available on the potential output of this semi-wildcat, although it is expected to make a commercial oil producer.

The Strawn horizon in the K-M-A field, Wichita County, added another deep producer when E. J. Stump & Company's Munger 1, SWc Lot 19,

Section 25, K. W. V. F. L. Survey, scored an initial output of 118 barrels daily after two acid treatments in broken sand and lime between 3720 and 3887 feet. Deep Oil Development Company's Munger 2 is still cleaning out at 4001 feet, while Howard Russell et al's A. W. Burnside 1, John M. Sharpe Survey and northeast of the K-M-A field, is reported to be showing oil, gas and water while testing stray sand at 2957-63 feet, with a total depth of 3043 feet. It was scheduled to drill to the Strawn horizon.

Although hindered in many areas by complete absence of water, the North Texas district yielded 34 completions during the past week, including 20 oil wells with a combined initial rating of 3167 barrels daily. There were 14 failures completed during this period.

Completions in North Texas during the past week folow:

Company, Well and Location	Init. Prod. Bbls.	Depth
ARCHER COUNTY—		
Chas. Alcorn et al, Justice-Atlantic 5	300	1085
Bridwell Oil Co., Falls County 7-C, Blk. 20	75	1124
B. Cockburn et al, J. M. Hayter 1, Sec. 2436	*	1450
Conoco, H. L. & J. F. Ward 3	*	954
Fain-McGaha Oil Corp., F. C. Green 15	150	1188
Fain-McGaha-Humble, Logan 41, Blk. 26	300	1143
Logan 42, Blk. 25	50	1176
L. F. Hooker et al, Justice 3, Blk. 4	55	1103
Justice Oil Co., Justice 5, Blk. 6	250	1078
McCarty Oil Co., L. F. Wilson 2-B, Sec. 2	*	1450
Pois-Schultz-Weaver, F. C. Green 29	460	1153
Ray & Staniforth, Perkins 2, Sec. 10	125	1613
Seitz-Comegys-Seitz, R. O. Prideaux 2	2	692
The Texas Co.-Consolidated Oil Co., Abercrombie 6, Blk. 153	30	1161
CLAY COUNTY—		
Metzner et al, L. Thornberry 4, Blk. 6	5	334
JACK COUNTY—		
Herbert Oil Co., H. C. Moore 1, Sec. 8	*	3190
Huffine Mineral Trust & Gilmore, C. C. Henderson 1, Blk. 2	*	368
MONTAGUE COUNTY—		
A. T. Darr & John Hoffer, Jr., J. D. Bybee 1, Blk. 19	*	903
WICHITA COUNTY—		
Regal Oil Co., Munger 1, Sec. 31	*	1854
E. J. Stump & Co., Munger Bros., 1, Sec. 25	115	3887
Texas Plains Oil Co., W. T. Waggoner 3-C, Blk. 18	*	780
WILBARGER COUNTY—		
Atlantic O. P. Co., Waggoner-Lido 17	25	2755
Consolidated Oil Co., W. T. Waggoner 5-T, Sec. 35	200	1888
W. T. Waggoner 6-T, Sec. 35	300	1688
W. T. Waggoner 1-Y, Sec. 99	*	2407
Hegralle Oil Co., W. T. Waggoner 5-A, Sec. 35	325	1897
W. T. Waggoner 8-A, Sec. 35	300	1891
YOUNG COUNTY—		
Compton et al, Jeffrey 1, Sec. 51	*	925
O. Groves et al, Yates 1	*	525
Hunt & Thomas, R. E. Myers 4, Sec. 160	50	1045
Kleiner-Hill & West, J. Davis 12, Sec. 1487	*	595
Rathke Oil Co., C. E. Graham 1, Sec. 3401	*	982
Wainwright & Keith, Rushing 1, Sec. 212	*	1012
Wooten & Reed, M. McBrayer 8, Sec. 1907	40	609

*Failures; †Junked; ¶Million cu. ft. gas.

Yates Field Leads West Texas Completions

San Angelo, Texas.—An aggregate of 84,420 barrels of new production was added in West Texas during the past week through thhe completion of eight flowing wells. There was also a dry hole completed during this period by a wildcat project in Runnels County. The volume of new production was abnormally high through the addition of big wells in Pecos, Ward and Howard Counties.

The Yates field, Pecos County, yielded the largest well when Mid-Kansas Oil & Gas Company's I. G. Yates 35-B, an inside location, gauged 3371 barrels of pipe line oil per hour from regular saturated lime pay zone at 1225-1450 feet. The California Company's B. D. Durgin 5, located in the Grand Falls district, Ward County, proved to be one of the largest producers in the area in some months by registering an

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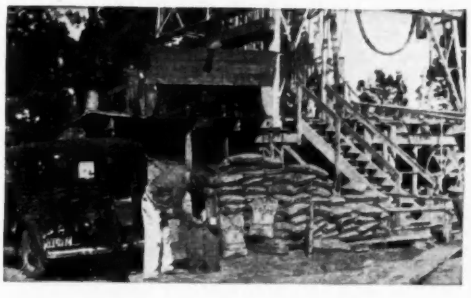

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Illinois Oil Company, Tyler, a new entrant into West Texas, made a good start in completing its J. P. Davis-Magnolia 1, located on the north end of production in Howard County, flowing and swabbing 643 barrels of oil during first 22 hours after shot of 350 quarts of nitro in broken lime at 2672-2800 feet. It is located in the SWc NE Section 2, Block 30, T-1-S, and on acreage recently acquired from Stacy B. Dorn et al. Dorn et al's Davis 1-B, a west offset, is drilling below 2500 feet, with 500 feet of oil in the hole.

Completions in West Texas during the past week follow:

Company, Well and Location	Init. Prod. Bbls.	Depth
ECTOR COUNTY—		
Landreth Prod. Corp., T. P. Land Trust 1-B	¶5-910	4275
E. J. McCurdy et al, H. C. Foster 1	20	4285
HOWARD COUNTY—		
Illinois Oil Co. (was S. B. Dorn), J. P. Davis-Magnolia 1	650	2800
LOVING COUNTY—		
West Texas Pet. Corp., J. G. Allen 3	190	4356
RUNNELS COUNTY—		
H. G. Sawyer et al, H. Giesecke 1	*	2295
PECOS COUNTY (Yates Field)—		..
Mid-Kansas O&G Co., I. G. Yates 35-B	80,900	1450
WARD COUNTY—		
The California Co., B. D. Durgin 5	1085	2555
Gulf Prod. Co., G. W. O'Brien 47	460	2750
WINKLER COUNTY (Scarborough Field)—		
Sid Richardson et al, Scarborough-Shell-Llano 1-B	205	3030

*Failures; †Junked; ¶Million cu. ft. gas.

Texas Panhandle Has Excellent Week

Pampa, Texas.—The Texas Panhandle contributed 19 oil and gas producers during the past week for a combined initial production of 8305 barrels of oil and 178,500,000 cubic feet of gas. The absence of dry holes among such a long list of completions scattered over four counties is not an unusual occurrence for the district, as operators usually can develop gas production from the upper lime section when tests fail to produce in the regular oil horizons.

Gray and Wheeler Counties again carried off high honors on total number of completions and also in volume of new production. The LeFors area, Gray County, scored an unusually large oil well when The Texas Company's M. B. Davis 7, located near NWc Section 9, Block 1, A. C. H. & B. Survey, gauged 1830 barrels of oil and 13,000,000 cubic feet of gas flowing natural from broken granite wash formation at 2739-2825 feet, with a total depth of 2830 feet. An important extension for the South Pampa district was in prospect last week when The Texas Company's Furneaux Trust Estate 1, SEc NW Section 99, Block B-2, H&GN Ry. Survey, developed 300 feet of oil in hole from lime at 3207-3216 feet. A fishing job developed at the latter depth.

Delays encountered in obtaining pipe line connections by the owners of new leases in western Wheeler County have been reported lately, thereby necessitating a postponement of five-day open flow gauges to establish proration potentials. Champlin Refining Company's G. W. Williams 1, NWc W½ NE Section 49, Block 24, is rated at 1135 barrels daily from broken granite wash formation at 2445-2525 feet. This well drilled in early in July, but was held up for pipe line outlet. Rawlings et al's A. Plummer 1, NWc N½ SE Section 45, Block 24, is awaiting an outlet before making production gauge, although it is rated at 150 barrels daily at 2443-2486 feet. Smith Brothers Refining Company's Plummer 1, a west offset to the above well, is credited with having flowed 250 barrels oil in 36 hours from pay at 2466-2520 feet. Both are more than a half mile from nearest production.

Moore County

Shamrock Oil & Gas Company's A. F. Robertson 1-B, which was reported last week as being a big oil and gas producer for the Sunray sector of the Dumas district, Moore County, gauged 350 barrels of high gravity oil during first three hours, with gas flow estimated at 10,000,000 cubic feet daily. It was pinched to 50 barrels hourly on the following day. This well is located in the SEc Section 165, Block "3-T," T&NO Ry. Survey, and is producing from lime horizon at 3368-3372 feet. Magnolia Petroleum Company's C. R. Jones 1, a south offset, was completed in August, 1931, at 3363-3376 feet, with an elevation of 3509 feet, flowing 60 barrels daily. The latter has since declined to 20 barrels daily, and is to be cleaned out and treated with acid. It is also to be checked on the straightness of the hole, as it will be deepened if the hole is found to be crooked.

Detailed list of completions in the Texas Panhandle last week follows:

Company, Well and Location	Init. Prod. Bbls.	Depth
GRAY COUNTY—		
Champlin Ref. Co., D. J. McLaughlin 7	225	3120
Continental Oil Co., Finley-Brown 8	140	3051
I. T. I. O. Oil Co., A. Smith 4	595	3248
Shell Pet. Corp., B. E. Finley 2	255	3098
Skelly Oil Co., J. F. Vicars 15	280	3293
L. H. Webb 7-A	¶2-60	2507
Stanolind O&G Co., W. E. Cobb 1-B	220	3330
W. E. Cobb 4-C	265	3315
The Texas Co., M. B. Davis 7	¶10-1830	2830
J. C. Short 3	195	3033
J. E. Wright 9	115	2865
HUTCHINSON COUNTY—		
Harry Stekoll et al, G. A. Whittenburg 3-E	100	3035
J. A. Whittenburg 1-G	35	3086
Tripplehorn Bros., R. C. Ware 2	180	3170
MOORE COUNTY—		
Shamrock O&G Co., A. F. Robertson 1-B,	¶10-2000	3372
WHEELER COUNTY—		
Champlin Ref. Co., W. W. Williams 1	1135	2525
T. S. Johnston & Harvey, O. B. Harvey 1	¶86½	1468
Piney O&G Co., Mineral Inv. Corp. 1	¶70	2207
Skelly Oil Co., O. L. Derrick 2	625	2545

*Failures; †Junked; ¶Million cu. ft. gas.

West Texas Record Depth Well Preparing to Test

San Angelo, Texas.—Production test for Gulf Production Company's J. T. McElroy 103, record depth hole for Texas, is due during the fore part of the present week, with the hole now bottomed at 10,633 feet in siliceous limestone carrying evidence of oil and gas saturation. Three feet of new hole was cored last week after drilling out cement plugs used in cementing the 7⅝-inch 34-pound casing at 10,301 feet.

Although surpassed in depth by a single test in Oklahoma and three in California, McElroy 103 set a new casing and cementing record, and also made new history in carrying a 9⅞-inch diameter hole beyond the 10,600-foot level.

It is credited with having an excellent chance to yield commercial production from the saturated lime topped at 10,564 feet. However, officials of the company expect to find it necessary to drill deeper into the lime which is tentatively identified as the Ordovician, before developing commercial production.

Humble Oil & Refining Company's R. M. Means 1, northeastern Andrews County wildcat, had progressed below 4420 feet late last week, showing considerable oil in rotary returns. This test has been in process of completion for several weeks, and in spite of its favorable showing failed to make successful drill stem tests in four attempts between 4143 and 4321 feet.

The southeastern Crane County wildcat test of the Cordova-Union Oil Corporation on the Jax Cowden ranch, Section 13, Block "X", shut down at 3345 feet in lime carrying sulphur water. This test passed up several oil and gas showings in the upper section of the lime, and may be plugged back for a shot and acid treatment.

Hidalgo County Gets Its First Oil Well

San Antonio, Texas.—Hidalgo County's first field was apparently in the making late in the week as Davis and Harrison's Mrs. L. George 1, was preparing to make a drill stem test of a gas sand cored at 4030-31 feet. It stopped immediately upon encountering the sand and is now reaming down.

The well has threatened to blow out, but heavy mud has been pumped in to prevent its getting away. This test is located 330 feet from the south line and 700 feet from the east line of a 40-acre tract in Tract 13, Porcion 41, Jurisdiction of Camargo, and is about one fourth of a mile south and a half mile west of the town of Sam Fordyce. It is 1600 feet northwest of Chancellor and Hall's test, which several months ago created considerable interest finding a sand just above 3150 feet, indicating an oil well, but developing salt water.

Bee County Wells Preparing to Test

San Antonio, Texas.—Falvey et al's Gardner, in the northeast corner of the tract in the F. Lewis Survey, Bee County, and one half mile southwest of Caeser Oil Company's gasser in the Caeser pool, is preparing to set casing after testing two sands to 3064 feet. The first sand at 3008-15 feet showed 320 pounds pressure in 10 minutes through ¼-inch chokes top and bottom. A second sand at 3052-64 feet tested eight joints of mud and salt water and a little oil in a like period. It probably will be plugged back.

Caeser Oil Company's Pullin Estate 1, north of the gasser, cored a sand at 3031-35 feet, which showed saturation and is coring ahead before making a drill stem test.

Deep Edwards Lime Showing Near Pearsall

San Antonio, Texas.—Amerada Petroleum Corporation's Halff and Oppenheimer 2, five miles southwest of Pearsall, Frio County, has reached 6800 feet on its Glenrose test. The well topped the Edwards lime at 5990 feet and at 6041 feet made about a barrel of oil an hour with considerable salt water and a little gas. The oil was 35.4 gravity. While the quantity of oil was only meager, it was rather encouraging for further work to deep Edwards lime along the fault zone, all production from this horizon being at less than one half this depth.

Vanderbilt May Have Second Sand

San Antonio, Texas.—Phillips Petroleum Company's Drummond 1, 4200 feet west of Vanderbilt field's discovery well, Jackson County, may establish a second producing sand for the area. The well encountered a sand at 5686-5702 feet, which showed saturation and a drill stem test is being made. It missed the first sand, about 100 feet shallower.

Phillips has two other active operations. State Realty and Investment Company 1, in the Vanderbilt townsite, has set 1151 feet of surface casing, and Simon and Seidel 1, northeast offset to the discovery, is drilling at 5890 feet. It likely will be carried to 6000 feet, a formation test run and another attempt made to complete in the 5550-foot sand.

Vanderbilt townsite may be jammed with derricks in the near future as a result of the recent court decision in which the railroad commission was restrained from stopping townsite drilling operations on tracts smaller than 10 acres. There has been a rush to make locations during the past few days and no less than 20 wells are expected to be started immediately.

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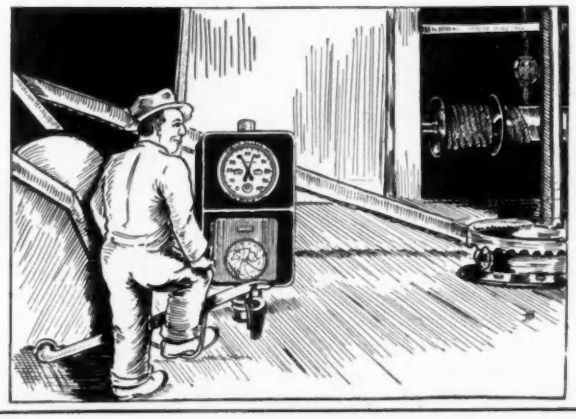

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Cole Poole Deep Sand Is an Important South Texas Strike

San Antonio, Texas.—United Production Company's new deep producer in the Cole field of Webb and Duval counties is believed to be the most important discovery in the Mirando area since the opening of the huge Government Wells field. The size of the structure and type of production is expected to immediately bring about a rather heavy play for this area, including the drilling of a number of deep wells along the trend.

United Production Company's A. M. Bruni 2 came in for an initial flow of 45 barrels an hour through ⅜-inch choke (some report ½-inch) in a sand at 3395-3422 feet. Casing pressure is 900 pounds and tubing pressure 600 pounds. The oil is 41.7 gravity, corrected. This production is said to be 438 feet in the Yegua, a zone from which only a small amount of production has been heretofore developed in South Texas.

The well is located 418 feet from the northeast line and 260 feet from the northwest line of Block 43, Section 7, Adams subdivision of the Mariano Arispe Grant, about a mile south of the town of Bruni. It is 660 feet east of Bruni 1, first well to be drilled to this sand by the United. It was completed June 6 at 3410-17 feet, jetting 60 barrels of oil per day from this horizon, and showing pressure of 250 pounds. Rig is being skidded back to this location to deepen it into the horizon with expectations of bringing it in as a large producer like Bruni 2.

One mile north of this well, Cole Petroleum Company's Cole 85, located in the south corner of a 300-acre tract, known as the Callaghan homestead, is at 3422 feet, where plugs have been drilled and the well is in process of completion. It topped the sand at 3400 feet and at 3415 feet, it made a drill stem developing 240 feet of oil. It was carried seven feet deeper with showings increasing and casing was set.

The structure has heretofore been mainly a gas proposition, there being slightly more than 600,000 barrels of oil recovered from the entire field, and that being mainly from a sand at 1750-1800 feet.

The first was originally discovered by Cole Petroleum Company's Rosa Benavides 4, Section 11, at 1700-5 feet, showing an initial flow of 69,000,000 cubic feet of gas. The discovery was made July 20, 1924. In February, 1926, Cintex Petroleum Company developed oil production at 1788 feet. Since that time, there have been a series of sands opened, the most recent, but preceding the United's strike, being made by Allen and Morris earlier in the year at 2950 feet, where a huge gasser was completed.

The structure thus far developed is about 12 miles long and ranges up to nearly four miles in width. While the new Yegua sand may not underly the entire structure, a large portion of it looks promising for at least considerable testing.

Zapata County Has Wildcat Campaign

San Antonio, Texas.—Zapata County has again come into prominence with a new spurt of wildcatting. There is quite a change in the new operations as compared with the past inasmuch as they are directed to the lower sands, rather than to the shallow producing horizons.

Merle Gunby is drilling the first of a series of three tests on the Haynes ranch, southwest of the Escobas and west of the Charco Radondo area. The first two wells are to be drilled to 2100 feet, which will give tests of the Cockfield, while the third is projected to 3500 feet or the Mount Selman. A new field was recently opened on the western side of the county in the Mount Selman.

Protection acreage has been acquired by The Texas Company, 3040 acres; Magnolia Petroleum Company, 1504 acres; United Production Company, 1280 acres; Mid-Continent Petroleum Corporation, 960 acres; and others. Milo Orr is the geologist and Robert Newton is the drilling contractor on this project.

To the southwest of these wells, Danvers and Harrison Oil Company is drilling at 600 feet in Vela 1, Block 7, Porcion 29, and F. D. Delaney is drilling Volpe 1, Porcion 33, below 1400 feet.

Coletto Creek Has Five Drilling Wells

San Antonio, Texas.—Five active drilling operations are reported in the Coletto Creek field of Victoria County, the greatest number to be drilling at any one time since the discovery of the field. Most of them are directed to the shallow sands recently opened, but will be carried to the deeper horizon in the event they fail to produce at these levels.

M. B. G. Oil Company has a gas sand at 2149 feet in Prybil 1. This sand overlies the 2200-foot oil sand and generally carries a heavy pressure. Nutex Oil Company's Zimmer 1, first well to encounter a producing sand at 2200-foot level, looks like a good producer, although it has not been thoroughly completed. It has the horizon at 2204-09 feet and is flowing into the pits, cleaning itself. Plummer has spudded in a west offset, also on the Zimmer tract.

Feltex Oil Company's Herman Dietzel 1 failed to develop production in the 2200-foot sand or the 2900-foot sand, testing salt water at 2926-53 feet, and is being carried deeper. It is now drilling at 3650 feet, the objective being the sand at 4437 feet, where Stoneleigh Oil and Gas Company's Terrell 1 made a gasser spraying oil. This old well is being worked over.

New Test for Darst Creek Field

San Antonio, Texas.—Magnolia Petroleum Company is starting an interesting test in the crevice area in the western portion of the Darst Creek field, Guadalupe County. It is Roamell 5, one location south of Roamell 3. One crevice well on the Roamell tract made an initial flow of slightly less than 42,000 barrels per day.

Sinton Outlook More Promising

San Antonio, Texas.—Outlook for the Sinton field, San Patricio County, is much brighter than it has been in several weeks as a result of the showing encountered in Petrol Corporation's Welder 1, 6200 feet northwest of the discovery well.

The Petrol test drilled to its contract depth of 6000 feet, made an electric formation test, showing a sand section at 5405-35 feet with saturation, not logged in the original log. The well will be plugged back, sidetracked and the sand re-cored.

The well is exactly 3500 feet west of Plymouth Oil Company's Welder 1-B, which had a sand at 5441-50 feet, and showed 210 feet of oil and some salt water on a 10 minute drill stem test. It was drilled to 5660 feet and has been temporarily abandoned. It is 3500 feet north and 45 degrees west of Welder 1-A, discovery test.

Plymouth's Welder 2-A, 1320 feet due east of the discovery well, topped the series of sands at 5427 feet, but finally went into salt water at 5454 feet and drilled to 5548 feet. The well was plugged back, sidetracked and re-drilled

to 5431 feet, set casing and is now drilling out plugs.

Angelita field, to the southwest, is not as encouraging. Atkins, O'Neill and Continental Oil Company's Welder 1-A, 2000 feet southwest of the discovery well, is drilling at 5680 feet. This well failed to get the regular sand, but picked up one about 100 feet deeper at 5441-47 feet. Casing was set and a drill test with the aid of a full-hole packer, the result being two fourbles of oil and the like amount of salt water in 10 minutes.

Same company's Welder 2, located 932 feet southeast of the discovery well, had the sand at 5368-83 feet, but showed some salt water when brought in. There was a lot of gas and considerable oil, but the well is now shut in to determine just where the salt water is coming from. The pressure built up to 1700 pounds.

South Texas Completions Include New Discoveries

San Antonio, Texas.—While South Texas completions during the week were not large in number, they offered several important discoveries which should lead to increased drilling in at least two districts. The new strike in the Cole field, of course, is the leader.

Completions follow:

Company, Well and Location	Init. Prod. Bbls.	Depth
BEE COUNTY—		
Houston Oil Co., Niehaus 3-B, BS & F Sur. No. 1	¶20	3660
Phillips Petroleum Co., T. P. Morgan 1, H. E. Eyles Sur, 4950 ft wl and and 3270 ft nl of 13,930-acre lease	*	6697
BEXAR COUNTY—		
W. H. Kennon, Fee 5, M. F. Rodriguez Sur. No. 4	*	380
Swearingen & White, Halbardier 17, Sec. 57	10	700
E. Weilbacher, A. Ernst 2, 150 ft n and e l 75-acre tract, John Christopher Sur.	*	983
DUVAL COUNTY—		
Bridwell Oil Co., C. W. Hahl 6, Blk. 15, Sec. 250	*	lcn
Magnolia Petroleum Co., C. W. Hahl 2-C, Sec. 61	480	2379
Reynosa Oil Co., Duval Ranch 8-D, Sec. 362	480	2287
JIM HOGG COUNTY—		
French Oil Corp., Tom East 1, 660 ft nl and on line between Blks. 67-68, B. J. Leyendecker Sub. No. 2, Loa Moritas Grant	*	2714
KARNES COUNTY—		
Magnolia Petroleum Company, Guy Porter 6, S. Morris Sur.	312	3700
LIVE OAK COUNTY—		
Jane Oil Co., H. L. Lark 2, Blk 2, Scrugham Sur.	8	1027
C. R. Kennon, Trustee, Lark 1, Blk. 27, Scrugham Sur.	12	1070
McMULLEN COUNTY—		
C. R. Kennon, Trustee, Lark 2, Blk. 15, Scrugham Sur.	20	1058
WEBB COUNTY—		
United Production Co., A. M. Bruni 2, Blk. 32, Sec. 8, Adams Sub., Mariano Arispe Grant	1080	3422
WILLIAMSON COUNTY—		
G. L. Rowsey, Henry Sladek 3-A, H. White Sur.	*	1105

*Failures; †Junked; ¶Million cu. ft. gas.

New Completions Made In the Manvel Field

Houston.—The fourth operator entered the Manvel field, Brazoria County, when Windsor Oil Company completed its Colby 1 for 30 barrels of pipe line oil per hour through a quarter-inch choke from 5120 feet. Tubing pressure was 250 pounds. The well is a south offset to Gulf Production Company's Colby 1, which was completed recently to extend the field to the south 800 feet. Windsor Oil Company's Colby 1, is located in the T. Spraggins Survey.

On a recent drill stem test the well showed 1400 feet of oil in 10 minutes from 5077 to 5120 feet. Ten-inch casing was set at 1207 feet and seven-inch pipe at 5079 feet. With an elevation of 64 feet the oil well topped the Discorbis from 4617 to 4619, Heterostegina from 4773 to 4793 feet and the Marginulina at 4890 feet. The well is producing from the deep pay sand of the Manvel field, the Marginulina zone of the middle Oligocene.

Gulf Production Company has made location for its second well in the Manvel field and the test will be known as Colby 2, located 991 feet southeast, 330 feet northeast of the west corner of Colby lease, Lot 21, T. Spraggins Survey. The company is now building the derrick. The Texas Company is reported making a second location for a well offsetting Gulf Production Company's Colby 1.

The Texas Company's Belcher B-11, offset to Gulf Production Company's Colby 1, H. N. Little Survey, came in at the close of the week making 666 barrels daily through a quarter-inch choke from 5120 feet. It is noted that the Windsor Oil Company's Colby 1, and the Texas Company's Belcher B-11, came in from the same depth of 5120 feet.

The Texas Company's Boff 2, in the H. & T. B. No. 74 Survey, was drilling the plugs late in the week and should come in over the past week end. Bottom of the hole is 5168 feet.

Livingston Extension Causes New Operations

Houston.—Since completion of Refugio Oil Corporation and J. C. Werby's Dick & Faling 1, three more new locations near the above extension test have been made. These operators have made location for Dick & Faling 2, 929 feet west of No. 1, Dick & Faling 3, 525 feet west of No. 2, Dick Faling 4, 750 feet north of No. 3, all in the A. Viesca Survey. The extension well is located three quarters of a mile north of producing limits in the Livingston field of Polk County and is surrounded by several dry holes. The well came in at the rate of 155 barrels in 44 hours through a 12/64-inch choke with a tubing pressure of 1555 pounds and casing pressure of 1680 pounds. The bottom of the hole was 4342 feet. The well is now making 98 barrels per day through a one eighths-inch choke.

It is reported Dick Schwab has purchased 200 acres from Ace Oil Company, south of the Livingston field for a deep Cockfield test. The test is supposed to start by the middle of the month. Five miles west of the Livingston field a proposed Cockfield test is to be started in the near future and

This shows what happens when a fishing trip is properly engineered. The picture shows Hu Harris of the engineering department of Humble Oil & Refining Company and a catch of fish reported by him at Mustang Island on the Texas Gulf Coast.

We are assured that the sign "Island Packing Company" is merely incidental to the picture and that Hu really caught the fish and did not buy them.

Incidentally, this picture shows what the well dressed fisherman is wearing at Mustang Island. That satisfied look, however, can be worn only after it has been duly earned as was the case with Harris.

the operators have to date approximately 1000 acres which they are leasing for one dollar per acre and the balance a free well. It is reported that the well will be located around the I. Parker Survey.

Van Vleck Area Activity Enlarged

Houston.—Skelly Oil Company has made location for its second well at Van Vleck, in Matagorda County. The well is known as Cobb 2, northwest diagonal offset to Cobb 1, which was the discovery well for this area. The well is located 1185 feet from the west line, 2515 feet from the south line of the Cobb 999-acre tract in the Mary Cummings Survey.

The company's Cobb 1, was completed March 19, 1934, for an estimated 120 barrels of 45 gravity oil per day from 7023 to 7076 feet. A three-eighths-inch choke was used. The discovery well has been shut in for the last three or four months and the operators will use fuel from this well to drill Cobb 2, which is now moving in material and digging cellar.

The new field is located 1½ miles northwest of Van Vleck. The area to the east and southeast of Van Vleck has been active during the past month with several oil companies taking large spreads in F. Pettus, F. George, Battle, Berry & Williams Surveys. Approximately nine or 10 miles southeast of Cobb 2, Harrison & Abercrombie have made location for its Bernard River Land Company 1, in the C. Breen Survey of Brazoria County.

Galveston Wildcat To Test Frio Showing

Houston.—Humble Oil & Refining Company's Maco Stewart 1, J. Sellers survey, three miles east of Dickinson, and between the San Leon and Gum Bayou prospects of Galveston County, was drilling in clay at 7824 feet. Casing will be run over the week end. A show of gas has been found in the Frio sand from 7780 to 7800 feet. Marginulina was encountered at 7009 feet, Heterostegina at 6786 feet, Frio at 7709 feet, Oligocene Discorbis at 6523 feet.

C. R. & G. Drilling Company's Spoor 1, south of Dickinson, approximately three miles, W. K. Wilson League survey, was temporarily abandoned at 6577 feet. The Texas Company is reported paying $7 dry hole money on all Wharton Weems land near the test, also Shell Petroleum Corporation is reported paying $8600 for 326 acres around the wildcat.

Texas Coast Wildcats Get Formation Tops

Houston.—General Crude Oil Company's Rorick 1, six miles south of Cypress on the Ogburn dome of Harris County was drilling below 5003 feet after topping the Discorbis at 2950 feet, Heterostegina at 3002 feet and Frio at 3568 feet.

In Hardin County, Wilcox Oil & Gas Company's, five miles north of Kountz in the G. Dorsey Survey, was drilling at 5890 feet. Top of the Massilina Pratti was found at 5520 feet with an elevation of 91 feet. Acreage is being bought in all directions of this test.

In Grimes County, J. Woodward's Hamilton 1, 1½ miles south of Richards, O. Hill Survey, topped the Cockfield at 2715 feet and was drilling ahead at 3060 feet. Top of the sand was found from 3001 to 3013 feet. Hockleyensis was found at 2584 feet.

Frio Producer Is Completed at Blue Ridge

Houston. — Mills Bennett Production Company's Luscher 1, at Blue Ridge, Ft. Bend County, was completed during the past week for 125 barrels of fluid, 38 percent salt water, from sands found at 3703 to 3730 feet in the Frio series of the lower Oligocene. The well was drilled to 4492 feet, where sand was tested from 3889 to 3940 feet, little oil was swabbed along with salt water. After plugging back and testing the sands at 3700 feet the well was completed. Discorbis was encountered at 3403 feet, Frio 3700 feet, Vicksburg from 4250 to 4445 feet and the Jackson from 4469 to 4479 feet. Nine-inch casing was set at 3690 feet.

San Jacinto Oil Company's Blakely 1, the only other drilling in the field, was shut down at 3400 feet.

Boling Dome Well Makes 30 Barrels Daily

Houston.—Allied Mineral Corporation's J. R. Farmer 1, on the southeast flank of Boling Dome in Fort Bend County, came in at the rate of 30 barrels per day through a three eighth-inch choke from 4428 feet. Tubing pressure was 300 pounds and the fluid showed 80 to 90 per cent basic sediment and wash water. No salt water was shown in the oil. On the first 12-hour gauge ending at 11 a. m., July 29, the well was making only 2 per cent basic sediment. Gravity of oil was reported at 22.2. Sand was topped at 4399 feet and the company had 29 feet of sand. Seven-inch casing was set at 4399 feet and two and a half-inch casing at 4326 feet. The operators now have the well pinched in as their two 1000-barrel tanks are full and they are now installing another 750-barrel tank. Sinclair Prairie Pipe Line Company is running a six-inch line from the test over to its main trunk line which runs approximately 2000 feet southwest from the well. The oil is being taken to the Sinclair Refinery on the Houston ship channel. It was reported late in the week that Sinclair Prairie Oil Company was dealing for properties near the test. A derrick is being built to the northwest of the flank well and it is on top of the cap rock.

Twenty Three Completions In Texas Gulf Coast

Houston. — Completions along the Texas Gulf Coast during the past week showed an increase over the previous week. There were 23 completions of which 15 resulted in producing wells with an initial production of 11,085 barrels of crude oil per day. There was one gas well in the Tomball field of Harris County, which came in for 2,500,000 cubic feet of gas per day. The remaining seven completions were failures. The Conroe field of Montgomery County and the Tomball field of Harris County tied for the lead in completions.

Completions for the past week were as follows:

Company, Well and Location	Init. Prod. Bbls.	Depth
BARBERS HILL—		
Sun Oil Co., Chambers 9	197	3908
Texas Gulf Prod. Co., Barber A-8	535	5543
BUCKEYE—		
United North & South Dev. Co., Stoddard 6, unit 1	*	7902
CLAY CREEK—		
Sun Oil Co., Schirmer 3	*	4843
CONROE—		
Gulf Coast Drlg. Co., E. E. Hensley 2	450	5125
Humble O. & R. Co., Keystone Mills 27	2088	5125
So. Texas. Dev. Co., A-66	936	5187
D-8	936	5167
GOOSE CREEK—		
Ferral & Erhardt, Addey 1	*	4167
MANVEL—		
The Texas Co., Belcher B-11	666	5120
Windsor Oil Co., Colby 1	720	5120
PIERCE JUNCTION—		
Gulf Prod. Co., Cain 10	860	4918
RACCOON BEND—		
Humble O. & R. Co., McCasland 3	840	4130
SOUR LAKE—		
The Texas Co., Fee 309	408	1849
SOUTH LIBERTY—		
E. L. Martin, Richardson 1 (wo)	*	3882
THOMPSON—		
Gulf Prod. Co., Myers 11	1248	5285
TOMBALL—		
Houston Oil Co., Hirsch 2	120	5578
Humble O. & R. Co., Hendricks 2	¶2½	5589
Theis 2	504	5573
J. E. Mabee, Baker 1 (wo)	577	5587
HARRIS COUNTY—		
H. H. Givans, Bender 1, G. Fisher Sur.	*	335
W. Hildebrandt 1, R. Giles Sur.	*	2667
JEFFERSON COUNTY—		
Lucky Strike Oil Co., J. P. Walker 1, 6 mi nw of Beaumont, D. Easley Sur.	*	1708

*Failures; †Junked; ¶Million cu. ft. gas.

Splendora Well Fails To Get Drill Stem Test

Houston.—Humble Oil & Refining Company's Anna M. Platte 1, W. Barker survey, 3000 feet east of Steen's well, which was the discovery well for the Splendora area of Montgomery County, was drilling in shale at 6019 feet at the close of the week. On the first drill stem test the well showed 310 feet of mud with a salty taste. Quarter-inch choke was used on top and a three eighths-inch choke on bottom. However, the tester slipped to about 5852 feet and the test was made in four and half minutes from 5826 to 5861 feet. On the second drill stem test from 5835 to 5861 feet the seat failed to hold. The tester was open five minutes and there were no shows.

The well topped the Cockfield at 5785 feet, Fayette at 4690 feet, Hockleyensis at 4940 feet, Catahoula Frio at 2087 feet, with an elevation of 114 feet. A sand was encountered from 5834 to 5837 feet but there were no shows. The Platte well is running about 30 lower than the discovery well on the Cockfield marker.

Reported Sour Lake Cockfield Acreage Sold

Houston.—Sun Oil Company is reported to be taking over Pharr et al's Bernard 1, 1¼ miles east of production in the Sour Lake field of Hardin County. This well was the discovery well for the producing Cockfield sand in the area. It is located in the H. & T. B. Survey No. 69. The details of the deal were not available at the close of the week but the rumor states that Sun Oil Company will take 75 acres and that another party will take the other 75 acres of the 150-acre lease. Sun Oil Company is to work over the Bernard well and to drill a new well offsetting the discovery well.

Pharr et al's Bernard 1, came in the latter part of April for an estimated rate of 1000 barrels of 32 gravity oil per day from sands found from 6935 feet, which was the top of the Cockfield, to 6944 feet. A heavy gas pressure was experienced and operators pumped heavy drilling mud into the hole. The well is now capable of making 20 to 25 barrels daily and one storage tank has been filled. This well started some excitement for the Sour Lake field, and also started flank drilling on several of the other old salt domes on the Texas Gulf Coast.

Alpha Petroleum Corporation's Steinberger 1, 150 feet west of the Pharr well, was trying to shut off salt water that is coming in up the hole. Casing was never set on the extension test and the operators are experiencing trouble with the hole. The Steinberger 1 is approximately 127 feet higher than the Pharr well and never showed salt water.

In the field, The Texas Company's Fee 309, in the S. Jackson Survey, was completed for 17 barrels per hour through a half-inch choke from 1849 feet and the company has made location for Fee 310, 400 feet north and 60 feet east of 308, which was recently completed. The Fee 310 is in the S. Jackson Survey.

Humble Oil & Refining Company's Kirby 1, in the Sour Lake field, S. Jackson Survey, was waiting on cement to set at 5622 feet at the end of the week.

Ft. Bend Wildcat Is Abandoned

Houston.—Gem Oil Company's Farmer 1, south of Needville, Robert Hodge Survey of Fort Bend County, was abandoned late in the week at 6025 feet. Sand was cored from 5635 to 5665 feet with an odor of gas, but the bottom section showed salt water. The base of the sand was found at 5725 feet. A core from 5747 to 5830 feet carried a small odor of gas and the bottom part also salt water and was in water sand at 5845 feet. Several other cores were taken and all contained salt water.

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New Prospect Found In Allen Parish

Lake Charles, La.—A new prospect has been discovered south of the town of Ten Mile in Allen Parish. It is known as Nellie and centers around Section 15, 16, 9 and 10, township 4s, range 5w.

Northwestern Allen Parish has been worked with seismograph instruments during the past three months by several companies. It is reported one major company is dealing for 5000 acres in the vicinity. Consideration for the acreage would be an immediate test well and $21,000 cash. Royalty in the district is selling for $30 per acre.

Two Plaquemines Parish Wildcats Are Abandoned

Lake Charles, La.—Southern Sulphur Corporation recently abandoned two wildcats in the Louisiana Coastal area. The company's Bay Adams State 1, located 10 miles east of Lake Washington, in Section 23-20s-28e, Plaquemines Parish, was abandoned at 725 feet after failing to have any shows at that depth. There has been no geophysical work or leasing going on in this area for the past three months. The same company's Gulf of Mexico 1, approximately eight miles south of Calcasieu Lake Dome, in Section 29-15s-10w, Cameron Parish, was completed at 3200 feet.

The only active well in this area is that of The Texas Company, which is drilling Calcasieu Lake A-10, the well is located in Section 1-14s-9w and was drilling at the close of the week at 6568 feet. Pure Oil Company and Yount-Lee Oil Company has been working to the northeast and the northwest of the Southern Sulphur Company's dry hole.

Rapides Parish

Lake Charles, La.—Ben Banner's Bentley Lumber Company 1, Section 11-4n-5w, in Rapides Parish, was shut down during the past week due to the lack of water. The bottom of the hole is 3120 feet and the operators report that drilling will be resumed as soon as it rains.

Jefferson Davis Parish Well to Test Showings

Lake Charles, La.—Tide Water Oil Company's Bourgeois 1, southwest flank test in the Welch field, Jefferson Davis Parish, was preparing to core at 5100 feet. The hole was originally drilled to 6017 feet where the company missed the Heterostegina, Marginulina and part of the Frio. The hole was bottomed in the Vicksburg. The hole was plugged back to 5030 feet and whipstocked and drilled to the present depth. The operators are going to complete the test, it is reported, in 40 feet of sand found at 5370 feet where a recent drill stem test was made through a four-inch drill pipe and a quarter-inch choke that was open five minutes. The well showed 150 feet of clean 28 gravity oil.

Bosco Developments Appear Disappointing

Lake Charles, La.—In the Bosco field of Acadia Parish, Superior Oil Company's J. S. Arceneaux 1, half mile north of the discovery well was drilling ahead below 8600 feet in shale at the close of the week, which depth makes it appear disappointing. The discovery well was drilled to 8916 feet and then was plugged back. The second well was completed at 7850 feet, and the third well at 8088 feet.

M. Savoie 1, 1½ miles northeast of the discovery well showed salt water from 8203 to 8215 feet, however the company reports that they have been drilling in hard sand at this depth. The bottom of the hole is 8451 feet.

The above two conditions, unless they are changed, may mean that Bosco will not be as important as thought heretofore.

Superior Oil Company's A. Martinez 1, 8000 feet east and a little south of the discovery well, was drilling at 5390 feet and set 13⅜-inch casing at 1200 feet. This well spudded in after July 26, 1934, and drilled to this depth on August 3, 1934. The well has averaged over 598 feet daily.

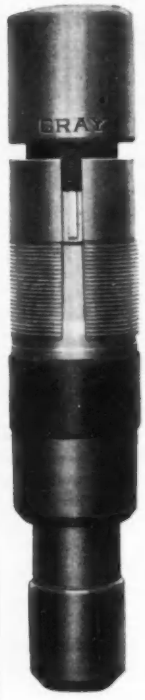
Same company's L. Savoie 1, 8500 feet northwest of the discovery well, spudded in on the first of August and was drilling below 800 feet on the third. Richard 1, was drilling below 8367 feet in shale and the L. Kahn 1, was drilling at 7687 feet. The remaining eight wells in the field were preparing to spud in at the close of the week.

The Pure-Van Pipe Line Company is now surveying and purchasing the right-of-way for a continuation of its six-inch welded pipe line, which is to be extended from the loading rack on the Southern Pacific Railway at Rayne, Louisiana, southwestward a distanct of about 22 miles to the Gueydan field of Vermilion Parish where it will be connected on to its present 8⅝-inch pipe line running from the latter field westward to the Mermentau River. This is for the purpose of handling the increasing production from the Bosco field at Acadia Parish. The company already has in operation a six-inch pipe line running from the field southwestward to the loading rack at Rayne, Louisiana.

New Iberia Discovery Well Making 900 Barrels

Lake Charles, La.—G. D. Spell's Bernard 1, the discovery well for the new deep sand in the New Iberia field, Iberia Parish, has been making an average of 900 barrels per day since discovery. The well came in the first week in July and has been producing steadily since that date.

This well demonstrated that the central portion of the Louisiana Gulf Coast has possibilities for shallow production and no doubt the prospective domes in the area will be drilled in the immediate future. It is questionable if the New Iberia field will be drilled rapidly, due to the fact that several of the major oil companies own large leases in the area



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and likely will adopt a conservative development program.

It is thought that several of the 30 wells that have been drilled in the field to date will be worked over for the deeper production.

The discovery well came in at the rate of 1000 barrels of pipe line oil through a three eighths-inch choke from 3828 feet. The choke was reduced to quarter-inch size and the well on July 11, 1934, made 720 barrels per day. The operators had 23 feet of sand in this third pay sand for the New Iberia Dome. G. D. Spell is now drilling another well. It is known as Sabatier 1, and is located 25 feet northwest of Bernard 1, in Section 54-12s-7e. At the close of the week the well was down to 2646 feet.

Geophysical exploration work and leasing has been slow for the past month throughout the entire parish and there has been no activity since the discovery of the new pay sand.

J. S. Abercrombie is purchasing the crude oil from the G. D. Spell's Bernard 1, a six-inch pipe line from the well to Bayou Teche, approximately one mile southwest of the well, has been laid. The oil is then being carried on barges to Coastal Oil & Transport Company, Clarion, Texas.

Eight New Producers In Louisiana Coast

Lake Charles, La.—The Leesville field of La Fourche Parish led the list of Coastal Louisiana completions during the past week with two new oil wells and one workover. Completions for the Louisiana Gulf Coast during the period totaled 10, of which eight were producers and two were failures. The initial production of the eight wells was 5161 barrels per day.

Completions along the Louisiana Coastal area for the past week are as follows.

Company, Well and Location	Init. Prod. Bbls.	Depth
CALLIOU ISLAND—		
The Texas Co., State Calliou Island 13	1998	3965
IOWA—		
Magnolia Pet. Co., Gilson 2	240	6999
Shell Pet. Corp., Heyd 9	600	6893
LEESVILLE—		
Emerald Pet. Co., State of Louisiana 5	360	3719
Lincoln Oil Co., Visier 1 (wo)	600	3878
Prince Oil Co., Nickle 2	838	3677
SULPHUR—		
Union Sulphur Co., Fee 798	500	3148
VINTON—		
Wilson Broach Oil Co., Wilson 5 (wo)	25	3277
CAMERON PARISH—		
Southern Sulphur Corp., Gulf of Mexico 1, s of Calcasieu Lake, Sec 29-15s-10w	*	3200
PLAQUEMINES PARISH—		
Southern Sulphur Corp., Bay Adams State 1, 10 mi e of Lake Washington, Sec 23-20s-28e	*	725

*Failures; †Junked; ¶Million cu. ft. gas.

Southern Louisiana Is "Hot Spot" of Gulf Coast

CHARLES LEYENDECKER
Staff Representative

Leasing activities and geophysical exploration work in the Louisiana Gulf Coast area have been increasing steadily during the past three months and indications are for even greater activity. The area is now witnessing the greatest strides of development in its history. Recent deep discoveries at Bosco, in Acadia Parish, Roanoke in Jefferson Davis Parish, and the new deep sand found at New Iberia dome are the contributing factors in the growing importance of Southern Louisiana as the "hot spot" in the coastal district. These new discoveries, along with other interesting developments, indicate promising possibilities and has made it necessary and profitable to rework a large number of sectors. Interest has been stimulated in several fields, including Iowa, which has developed into one of the most prolific in South Louisiana.

The area classed as the Louisiana Gulf Coast is approximately 220 miles long and 150 miles wide, the boundaries being Texas on the west and Mississippi on the east, with the Gulf of Mexico as the southern edge. It is interesting to note that in this wide area a narrow strip, starting with the Vinton field on the west and ending with Pt. Barre field on the east, has yielded the bulk of all oil produced along the coastal section of Louisiana. This narrow strip is 96 miles long and ranges from six to eight miles in width. Fields included in this section include Vinton, Edgerly, Sulphur, East Hackberry, Lockport, Iowa, Roanoke, Jennings, Bosco and Pt. Barre. The entire Louisiana Coastal area has produced 159,000,000 barrels of crude oil, of which amount the small area described has recovered 135,000,000 barrels. There is no particular portion of the Louisiana Coast, however, that is receiving all the present play; it being scattered throughout the entire territory.

The growing importance of coastal Louisiana is indicated by its production curve. North Louisiana formerly produced more crude than the southern portion of the state. In 1927 the northern sector produced 18,134,852 barrels, while southern Louisiana was producing 5,032,400 barrels. Since that year the southern part of the state has shown a steadily increasing yield, while the northern portion has been decreasing rapidly, until in 1932 the coastal region produced 11,167,260 barrels of oil and the northern portion only 9,849,925 barrels. For the first half of 1934, the coastal district produced 9,214,750 barrels and the northern part only 4,827,150 barrels.

Present indications point to a higher degree of interest in the development around a number of old established salt domes. Several major companies and individuals have already shown a tendency toward acquisition of flank acreage and drilling for off-side production. Recently, Vinton Petroleum Company leased from Mathilda Gray 40 acres on the south of the Vinton dome. The reported consideration for the acreage was $500 per acre. The company has now made location for its Gray 1, located 230 feet south of the north line and 545 feet west of the east line of the southeast quarter of the northeast quarter in Section 4-11s-12w. On the southwest side of the old West Hackberry dome, Pure Oil Company leased 120 acres covering the southwest quarter of Section 29, and west half of the southeast quarter of Section 30-12s-10w, paying a bonus of $15 per acre and $15 per acre annual rental for a five-year lease. On or near the old Houma gas field, Adams-Louisiana Corporation is reported to have taken about 2600 acres at $5 per acre and it is thought that this old gas field will be worked over.

Heretofore developments have centered almost exclusively around shallower domes in the area. In the opinion of the best informed oil men in South Louisiana, the coastal part of Louisiana will yield much deep production, as demonstrated at Iowa, Bosco and Roanoke. A common saying in the coastal area is, "the reason that more new fields have not been discovered is because there has not been sufficient exploration work or drilling to furnish enough information for success."

Since January 1, 1934, there have been approximately 1,850,000 acres leased in the area, whereas during the entire year of 1933 there were only 650,000 acres leased. It is estimated that if the increasing rate of leasing continues, that at the end of the present year there will be approximately 4,000,000 acres taken under lease.

During the past week reports show that 95,675 acres were leased for geophysical work, with Humble Oil & Refining Company taking the lead. Superior Oil Com-

pany followed closely behind Humble Oil & Refining Company. In East and West Feliciana and East Baton Rouge Parishes, Superior Oil Company has acquired a free 90 days exploration block covering 43,000 acres and at the end of this 90 days a selection of one dollar per acre is to be paid if kept, with 50 cents rentals. If retained, they are also supposed to begin a well before July, 1935. Magnolia Petroleum Company is also reported to have taken 10,000 acreage in this parish for geophysical work.

Humble Oil & Refining Company is reported to have leased approximately 15,000 acres, in Allen Parish. The area where the operators are reported working, several of the major oil companies have also been taking geophysical option. The area is supposed to have interesting surface indications. From time to time Humble Oil & Refining Company has worked this area with torsion balance.

The above leasing for geophysical exploration work is common in this area and several of the major oil companies have taken larger spreads than those mentioned above. Several of the major, as well as independent oil companies, are now sending crews to work on the flanks of the old and new domes as previously mentioned. Magnolia Petroleum Company is reported to have taken approximately 1200 acres on the southeast flank of the Vinton dome and recently two parties, one of Lake Charles and the other of Houston, have assembled some acreage in the same area. The two operators have to date approximately 3500 acres and at present it is understood that they are trying to make a deal for lands belonging to the Federal Land Bank, covering about 1000 acres and are offering to begin a well in six months within at least three miles of some line of the property. The parties have had the entire area worked with geophysical instruments and major companies are now buying protection in the area. One of the more recent domes, Bosco, is being shot in all directions by many parties.

These mentioned are of the many interesting developments that are going on in the South Louisiana Coastal area. Not only these wells will be drilled but other important wildcats are in the process of being drilled or started within the next few months.

Geophysical exploration work has showed a marked increase during the past six months with a total of 72 instruments in use in the Louisiana Gulf Coast area. July, 1933, showed that there were only 21 instruments in use in this region. The chart shows 22 companies that are exploring with geophysical instruments, of which 51 are torsion balance parties and 19 seismograph. Many companies are sending their crews from the Texas Gulf Coast to the Louisiana Coastal section. The Texas Gulf Coast has 36 torsion balance instruments 24 seismograph reflection, two pendulum, three magnetometers and one gravity meter, making a total of 55 instruments. The total number of geophysical instruments used in both Texas and South Louisiana is 138. South Louisiana has been on the steady increase and the Texas Gulf Coast has been decreasing slowly.

Geophysical Crews Working the Louisiana Gulf Coast

Company—	Torsion Balance	Reflection	Refraction	Pendulum	Magnetometer	Gravity Meters
Amerada Petroleum Company	0	2	0	0	0	0
Continental Oil Company	2	0	0	0	0	0
Danciger Oil & Refining Company	4	0	0	0	0	0
Edwards & Company	0	1	0	0	0	0
Gulf Refining Company	3	0	0	1	0	0
Humble Oil & Refining Company	8	2	0	0	1	0
Independent Exploration Company	0	1	0	0	0	0
Lincoln Oil Company	1	0	0	0	0	0
Magnolia Petroleum Company	2	1	0	0	0	0
Kerns & Company	3	0	0	0	0	0
Noble	0	1	0	0	0	0
Lincoln Oil	2	0	0	0	0	0
Louisiana Land & Expl. Co.	0	1	0	0	0	0
Ohio Oil Company	1	1	0	0	0	0
Pure Oil Company	0	1	0	0	0	0
Salt Dome Company	2	0	0	0	0	0
Shell Petroleum Corporation	13	1	0	0	0	0
Stanolind Oil & Gas Company	4	0	0	0	0	0
Superior Oil Company	0	1	0	0	0	0
The Texas Company	6	4	0	0	0	0
Union Sulphur Company	0	1	0	0	0	0
Yount Lee Oil Company	0	1	0	0	0	0
Louisiana Gulf Coast Total	51	19	0	1	1	0

Louisiana August Allowable Is Allocated

Shreveport, La.—In allocating the 87,200-barrel federal allowable for the State of Louisiana during August, a reduction of 1700 barrels over July, Dr. J. A. Shaw, director of the mineral division of the state department of conservation, set the yield for North Louisiana at 22,500 barrels, a 1000-barrel decrease over July, and South Louisiana's quota at 63,750 barrels.

The proratoon for the various South Louisiana fields follow: Bayou Choctaw, 850; Black Bayou, 1250; Bosco, 2400; Caillou Island, 4000; Cameron Meadows, 1650; Edgerly, 150; Evangeline, 1500; Gueydan, 350; East Hackberry, 4700; Iowa, 15,500; Lake Barre, 4850; Lake Washington, 1200; Leesville, 10,500; Lockport, 1650; New Iberia, 500; Port Barre, 2500; Roanoke, 900; Starks, 1000; Sulphur Mines, 3550; Sweet Lake, 950; Vinton, 3250; and White Castle, 550 barrels.

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Louisiana Drilling Permits Fee Becomes Effective

Shreveport, La.—The bill passed at the last session of the state legislature authorizing the State Department of Conservation to place a fee of $50 on drilling permits in the state, the money to be used to help pay cost of geological survey of Louisiana, went into effect August 2.

During the week before the fee went into effect, more than 50 applications were made by operators for permits, but none were issued, however, pending investigation to see if they were ready to start operations. It is said that all those applications made before August 1, and operations were ready to start, would be issued and the fee not charged.

Important Louisiana Wildcats Are Started

Shreveport, La.—The staking of a location by L. M. Moffitt, trustee, and Magnolia Petroleum Company for a second test on their 18,000-acre wildcat block in north Bossier Parish, near Rocky Mount, and preparations by Gulf Refining Company to start drilling operations on its prospect near Sibley, Webster Parish, featured new activity in North Louisiana last week.

The second well on the Bossier block was staked by the pair as W. H. Martin et al 1, 330 feet north and east of the southwest quarter, Section 31-22-11. It is about one and three quarter miles southeast of the Antrim 1, Section 26-22-12, their first well, which was abandoned several weeks ago as a dry hole at 3502 feet.

Drilling is expected to get under way early next week on Gulf Refining Company's test, Tom Crichton 1, located in the northeast corner of the southwest quarter of Section 15-18-9, about three quarters of a mile northwest of the town of Sibley. The test is on a block of about 7000 acres, of which Sibley is about the center.

Three New Tests In Southeast States

Jackson, Miss.—There were two first starts added to Mississippi drilling operations last week, and one new one added to Alabama drilling operations.

The two in Mississippi are as follows:

In Lamar County, Hix & Germany made location for their J. J. Newman Lbr. Co. 1, center of Section 21-4n-15w.

In Scott County, R. W. Woods et al are rigging up on their Rogers 1, NEc NW NE of Section 4-5n-6e.

The one in Alabama is as follows:

In Pike County, Alabama Drilling Company made location for their Faulk 1, NW corner Section 31-11n-21e.

One New Test for North Louisiana

Shreveport, La.—There was only one new start added to North Louisiana drilling operations last week as follows: In Winn Parish, Red River Refining Company started building derrick on their Tremont Lumber Company 2, SWc se se, Section 26-11-1w.

Arkansas Has But One New Start

There was only one new start added to Arkansas drilling operations last week as follows:

In Miller County, Bloomburg Oil Corpn. had derrick up on their Patterson 1, SEc SE NE, Section 5-19s-28w.

North Louisiana Has But One Completion

Shreveport, La.—There was only one completion in North Louisiana last week, which was as follows:

Company, Well and Location	Init. Prod. Bbls.	Depth
NATCHITOCHES PARISH—		
Plummer & McDaniel, Lizzie Walmsley 1, sw cor 45-10n-8w	*	5362

*Failures; †Junked; ¶Million cu. ft. gas.

One Completion For Mississippi

Jackson, Miss.—There was only one completion in Mississippi for last week in Issaquena County, which is as follows:

Company, Well and Location	Init. Prod. Bbls.	Depth
ISSAQUENA COUNTY—		
Pelican Oil & Gasoline Co., Steel Bayou Corpn. 1, swc of nw, 14-12n-8w	*	3125

*Failures; †Junked; ¶Million cu. ft. gas.

Leases Taken in Goleta District

Los Angeles.—North American Oil Consolidated, San Francisco, has taken over a lease of about 260 acres in the Goleta district in Santa Barbara County centered in Section 16, T 4-N, R 28-W, and it is understood a test will be started in the near future. The leases were blocked by Richard R. Crandall, petroleum consulting geologist of Los Angeles. The structure is admitted to be somewhat obscure due to lack of surface exposures but involves a possible closure against the State Street fault. Productive horizons may be encountered in the Pliocene, Monterey shales, Vaqueros or Sespe formations. The Vaqueros probably will be encountered at approximately 200 feet.

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Ten Wells Near Sand At Kettleman Hills

Los Angeles.—The Kettleman North Dome Association's 56-8Q, the edge deep test at Kettleman Hills with bottom at 9841 feet, is now sidetracking obstruction in the hole. A string of 13⅜-inch casing had been cemented at 6847 feet, making it possible to go to extreme depth if no other trouble is had.

Ten wells at Kettleman Hills have landed either seven-, nine- or 9⅝-inch casing and are drilling near the completion point. Standard Oil Company's 6-33J is ready for production test, and 45-1P should be ready shortly.

Superior Oil Company's Huffman 8, with bottom at 9205 feet, has been fishing for drill pipe, but late reports from the field indicate the pipe will be sidetracked.

Middle Dome Corporation's 58-192 on the Middle dome in Section 19-23-19, is coring hard brown shale at 7343 feet and expects to pick up the top of the Temblor at about 7500 feet.

Leasing Active in Santa Barbara County

Los Angeles.—Leasing of small tracts of land to the south of Santa Maria in Santa Barbara County is fairly active, due to finding of a small producing well by Union Oil Company at 2389 feet. The well on a pumping test made from 30 to 75 barrels of 16.8 gravity oil, cut four percent.

The well was drilled in Section 24-10-34 on land blocked up by A. N. Macrate, the block consisting of about 2300 acres. The small leases being signed up offset this large lease, and some of the leases call for drilling within 90 days.

The new well is located about 1½ miles south of the old Santa Maria field, where Union Oil Company owns a number of producing wells. The Union some time ago drilled a well to 2800 feet in this general area, but the hole was abandoned. General Petroleum Corporation and Western Gulf Oil Company in times passed drilled dry holes on the so-called Santa Maria plains. Superior Oil Company some years ago did some post hole prospecting in the same general area.

Belridge Tests Seeking Deep Pay

Los Angeles.—Three wells are drilling below 6500 feet in the old Belridge field in Kern County, the home of the present deepest well in the world.

General Petroleum Corporation's Berry 1, bottomed at 11,377 feet, is now milling on stuck tubing at 9632 feet and the job looks like it is a tough one.

Union Oil Company's Belridge 18 is drilling at 7990 feet in hard shale with 8⅝-inch casing cemented at 7797 feet. Belridge Oil Company's 16-35 is drilling in shale at 6590 feet with 11¾-inch landed at 5690 feet. Same company's 50-27 has cemented 11¾-inch at 4969 feet, bottom.

Standard Oil Company's McPhail 1, in Section 36-27-20, is redrilling at 2165 feet with old bottom at 4528 feet. String of 16-inch casing is cemented at 1020 feet. Reward Oil Company's Reward 5 is drilling in shale at 3500 feet, while Continental Oil Company's Result 5 is in hard shale at 4150 feet, with 11¾-inch pipe landed at 2037 feet.

Casa Mira Oil Company's Thelta 1-A is drilling in hard sand at 5180 feet.

It is indicated all the present drilling wells are seeking the deep pay, since large casing is being cemented at considerable depths, making it possible to drill to comparatively extreme depths.

Ventura Avenue Activity Increases

Los Angeles.—Associated Oil Company is very busy at Ventura Avenue, drilling new wells and working over old producers. It has 16 strings of tools in action and four new wells will be spudded in the next few days, thus increasing the number of men at work. A number of old producers on the Lloyd lease are being plugged back to be redrilled.

For instance, Associated Oil Company's Lloyd 40 was plugged from 7486 feet to 6637 feet and placed on the gas lift for

Mountain View Field, California. This section in center of field. Mohawk Clendenen No. 1 which came in for 2500 barrels of 28 gravity oil per day shown in center of picture. Well was an outpost extension and extended field at that time one-half mile to the northwest.

250 barrels of 27 gravity oil in 15 hours. Lloyd 31 was plugged from 5180 feet to 2450 feet, 11-inch was shot and will redrill. Hartman 14 was plugged from 8431 feet to 8375 feet and is ready for a test.

Shell Oil Company is running seven strings of tools on the same field, and is drilling in oil sand in two holes on the Taylor lease. Taylor 77 is in oil sand with streaks of gray sand at 9482 feet and Taylor 81 is drilling in oil sand and shale at 4775 feet. Same company's Gosnell 35, with old bottom at 8254 feet, is redrilling at 8190 feet.

Property Service Corporation, formed to test outlying acreage, is drilling at 5010 feet after completion of a fishing job. The well is known as Dabney-Lloyd 3, and has a string of 18⅝-inch casing cemented at 1195 feet.

General Petroleum Corporation's Notten 13 is drilling at 6255 feet in hard shale. Sixteen-inch was cemented at 3775 feet.

California Has Seven Completions

Los Angeles.—Five producers and two dry holes made up California's completion list last week. There were 2825 barrels of new production. The best well of the week was Pomgratz Oil Company's Tavis 3 at Mt. Poso, which came in for 1150 barrels of 16.5 gravity clean oil at 1840 feet. Ninety feet of perforated pipe was landed on bottom. The well is pumping.

The Texas Company's No. 1, in Section 35-20-14, in the Coalinga area, was abandoned at 1392 feet as a dry hole. Jas. M. Douglas has quit his wildcat in Monterey County, Section 36-22-9, at 4175 feet.

The list of new completions follow:

Company, Well and Location	Init. Prod. Bbls.	Depth
LONG BEACH—		
The Texas Co., Robinson 5	650	4170
SANTA FE SPRINGS—		
Union Oil Co., Bell 66	300	3691
SEAL BEACH—		
Continental Oil Co., Bixby 32	325	6582
MT. POSO—		
Pomgratz Pet. Co., Tavis 3	1150	1840
ROUND MOUNTAIN—		
Shell Oil Co., Jewett 3	400	2128
COALINGA—		
The Texas Co. No. 1	*	1392
MONTEREY—		
Jas. M. Douglas	*	4175

*Failures; †Junked; ¶Million cu. ft. gas.

Osage Field

Osage, Wyo.—Carl Cundy et al made an above average Osage completion in its Osage 8, center of the west line of the SE NE Section 31-36n-63w. It pumped 60 barrels initial with the Newcastle encountered between 1380-98 feet. Total depth is at 1450 feet. There are no other active tests in the Osage field, Weston County, Eastern Wyoming.

Rocky Mountain Activity Increases

Casper, Wyo.—A survey of new locations in the Rocky Mountain States for the first six months of 1934 showed a total of 217 tests starting. This is a gain of 173 new wells over the same period a year ago. The Cut Bank field, where 63 new locations were made, and the Lea County fields of Southeastern New Mexico with 46 new tests accounted for the heavy gain in drilling operations in the Mountain States.

Following is a comparative table for new tests in the Mountain States for the first six months period of 1934 and 1933:

State	1934	1933	Increase
Montana	89	12	77
Wyoming	29	15	14
Colorado	17	4	13
New Mexico	82	13	69
Totals	217	44	173

Cut Bank Field Has Record Week

Cut Bank, Mont.—Scoring six completions, four of which made better than 200 barrels initial, and two of which had better than 100 barrels initial production, the Cut Bank field during the past week had its best completion run in its history. Three new locations were released.

Two of the completions proved up a formerly doubtful area east of the town of Cut Bank, and lease requirements will call for the drilling of at least 20 wells in this area within the next 90 days. R. C. Tarrant's Jones 1, C SW SE Section 31-34n-5w, a mile north of the corporate limits, flowed 250 barrels initial. It logged the producing sand between 2775-87 feet, a depth approximately 100 feet shallower than in the average Cut Bank producer. The hole is bottomed at 2795 feet. Montana Power Gas Company's No. 1 Fuller, C SE Section 17-25n-5w, a mile east of the town, had an initial production of 240 barrels, with hole bottomed at 2969 feet and the sand encountered at 2946-65 feet.

Santa Rita Oil & Gas Company brought in the second largest completion in the field since R. C. Tarrant's No. 1 Miller. It is Hardy 2, Lot 6, Section 27-35n-6w, which had an initial production of 265 barrels. The well cut the producing horizon between 2901-20 feet, and drilled to 2922 feet.

The Texas Company's Antrim 4, Lot 3, Section 34-35n-6w, swabbed 229 barrels in the first 24 hours, encountering the sand between 2925-43 feet. It has hole bottomed at 2951 feet in the Ellis. The Texas well is on a lease offsetting the Blackfeet Indian acreage acquired in a recent sale by the Consolidated Gas Company. It will require the drilling of seven offset wells.

Nadeau Bros.' Van Demark 3, SW NW Section 35-35n-6w, pumped 165 barrels initial. It cut the producing sand between 2911-20 feet, and drilled 2935 feet. Alberta Pacific Consolidated Oil Company's Mattson 4, SW NW Section 14-34n-6w, had an initial production of 128 barrels. The hole is bottomed at 2946 feet with production coming from 2915-36 feet.

The Texas Company released location for Hessler 1, C NE NW Section 30-33n-5w, a south offset to the Montana Power's Fuller 1. R. C. Tarrant spotted State 1 in the SE SE Section 36-34n-6w. The Montana Power Gas Company's Pioneer Lumber Co. Unit 1, SE SE Section 21-35n-5w, is a new location.

Dry Creek Field

Billings, Mont.—Ohio Oil Company's Agnes Maddox 14, NW NW Section 10-7s-21e, in the Dry Creek field, Carbon County, Southern Montana, is drilling at 4842 feet. Objective, the Dakota, is expected at around 5200 feet.

Two New Tests in Wyoming Black Oil Sector

Cody, Wyo.—Two new starts were made in the black oil fields of Northern Wyoming. Peter Evanoff and associates are erecting a 122-foot standard steel derrick for Griffin 1, Section 53-55n-97w, in the Garland oil field, Big Horn County.

Garland Oil Company's Cotner 1, Section 10-56n-98w, in the fault block area

Rocky Mountain States Completions

MONTANA

Company, Well and Location	Init. Prod. Bbls.	Depth
GLACIER COUNTY—		
Producers Development Synd.'s Helgason 1, c nw nw 29-32n-4w	*	2780
Montana Headlight Oil Co., Yunck 1, nw sw 1-34n-6w	300	2794
TOOLE COUNTY—		
Big West Oil Co., Crawford 1, csw nw 7-34n-2w	*	1421

WYOMING

HOT SPRINGS COUNTY—		
Argo Oil Co., Ellen 10, se se nw 14-44n-98w	300	2693
PARK COUNTY—		
Paul Stock, Government 1, se se ne 29-51n-100w	450	3636
WESTON COUNTY—		
Carl Cundy, Fee 8 cwl se ne 31-46n-63w	60	1398

NEW MEXICO

EDDY COUNTY—		
R. D. Compton, Brainerd 6, se 5-18s-27e	*	1936
Getty Oil Co., Cook-Ironsides 2 sw sw 8-20s-29e	20	1160
Welch & Compton, Smith 1-A, ne se sw 7-18s-27e	*	1225

*Failures; †Junked; ¶Million cu. ft. gas.

in the northern sector of the field, a new location, is moving in equipment. The company's Government 2, C S L NE NW Section 32-56n-97w, is building steel derrick. The test had spudded with machine and set 60 feet of 13-inch conductor pipe.

Paul Stock et al are drilling below 3200 feet in Government 1, SE SE NE Section 29-51n-100w, in the Oregon Basin field, Park County, Wyoming. Argo Oil Company's Ellen 10, SE SE NW Section 14-44n-98w, in the Hamilton Dome field, Hot Springs County, is drilling at 2250 feet.

In the Byron field, Big Horn County, Ohio Oil Company's Byron-Union 1, SE NE Section 22-56n-97w, is drilling at 2051 feet. Taylor Oil Company and S. H. Keoughan's Hoskins 1, Lot 5, SE SE Section 25-56n-97w, has recovered 10-inch casing, and is mudding walls to drill deeper with rotary. The test was drilled to its present depth of 2885 feet with cable tools.

Hiawatha Field

Craig, Colo.—Mountain Fuel Supply Company's Florence Wilson 4-B, C NE NW Section 23-12n-100w, on the Colorado side of the Hiawatha field, Moffat County, is drilling at 2692 feet. In the East Iles Dome field, the Stanolind Oil & Gas Company's Parkinson 33 S-D, SE Section 22-4n-92w, an old well drilling deeper, is coring at 3323 feet, and is still in the Sundance. Company is coring in the well to log the thickness of the Sundance formation at the structural high of the East Iles Dome field.

Eastern Fields Completions

PENNSYLVANIA

Company, Well and Location	Init. Prod. Bbls.	Depth
WASHINGTON COUNTY—		
E. H. & J. B. Tague, A. D. McKennan 11	2	....

WEST VIRGINIA

Company, Well and Location	Init. Prod. Bbls.	Depth
BOONE COUNTY—		
G. L. Cabot, Inc., Sidney White 1	¶	2341
CABELL COUNTY—		
H. H. Baker Gas Co., A. Beckett 1	¶	1700
CLAY COUNTY—		
W. C. Patterson, Vandevender 23	1	....
CALHOUN COUNTY—		
G. L. Cabot, Inc., J. M. Bennett 3	12	....
Mollahan & Poling, J. Burrows 1	¶	2126
RITCHIE COUNTY—		
G. A. Smith & Co., F. M. Wince 1	300	....
John Deem & Co., L. E. Robinson 1	*	2080
Petroleum Prod. Co., C. J. & M. Carroll 21	*	....
Clem Morris, M. M. Bradwater 1	¶	....
Satterfield & Co., A. L. Mullenaux 1	*	2090
Homer Hawk, J. W. Alkire 1	*	2082
ROANE COUNTY—		
Henderson Oil Co., E. S. Ball 1	15	1168
PUTNAM COUNTY—		
J. V. Reishman, James Webb 1	¶	2280
Midway City Gas Co., Switzer Hrs. 1	¶	2145
PLEASANTS COUNTY—		
Densmore & Co., A. J. Boley 5	*	....
WAYNE COUNTY—		
J. H. Wilson, Spring Valley Club 1	1	2704
WETZEL COUNTY—		
Manufacturers L. & H. Co., W. B. Hubbard 3.300	¶	2704

SOUTHEASTERN OHIO

Company, Well and Location	Init. Prod. Bbls.	Depth
MONROE COUNTY—		
Ray Lynn & Co., P. W. Eddington 2	10	1656
Robert Lewis Co., E. F. Flauhaus 1	¶	1541
MORGAN COUNTY—		
M. A. Martin & Co., M. A. Martin & Co. 6	*	640
Mosier & Co., Chas. D. Yarnell 28	*	562
NOBLE COUNTY—		
W. F. Greenless & Co., Rothley 2	*	....
Elmer Thornley, Leonard Cain 2	2	1580
T. & C. Rich, L. K. & Wm. McLaughlin 3	5	1516
WASHINGTON COUNTY—		
Dreamer Oil & Gas Co., Thresa Jurden 1	*	1319
Watt Harris, Mary M. Dilla 1	17	963
Bowman Bros., Emmer Bowman 102	2	358
Ohio F. G. Co., C. L. & J. B. Atkins 1	¶	1835
Chas. Clark & Co., O. W. Nowlen 16	*	260
Decker & Sisler, F. L. Decker 8	2	1180

CENTRAL OHIO

Company, Well and Location	Init. Prod. Bbls.	Depth
ASHLAND COUNTY—		
Ohio F. G. Co., A. & M. Shafer 1	¶	3140
Kenova O&G Co., M. Drushell 6	7	547
Robison & Co., A. J. McClure 2	1	....
ATHENS COUNTY—		
Ohio F. G. Co., C. L. & C. B. Atkins 1	¶	1835
Atwood Grim 1	¶	946
GUERNSEY COUNTY—		
Clymer & Co., M. K. Petty 1	*	1297
J. T. Roach, Sadie House 2	¶	1489
Geo. Jewell & Co., Joe Polasky 1	*	1297
HOLMES COUNTY—		
Ohio F. G. Co., A. S. Graven 1	15	3506
KNOX COUNTY—		
Upham Gas Co., Book Ranson 1	*	2509
LORAIN COUNTY—		
McMillan & Co., Merl Penfound 1	*	....
MEDINA COUNTY—		
Ohio F. G. Co., Edward C. Herr 1	¶	3140
Preston Oil Co., C. A. Dague 3	*	....
MEIGS COUNTY—		
Ohio F. G. Co., Pearly Rolph 1	¶	946
Joe Rubin & Co., Crosby J. Price 1	¶	861
Roy Proffitt 1	¶	2022
PERRY COUNTY—		
Mid East Gas Co., Webb-Porter 1	¶	930
STARK COUNTY—		
Ohio F. G. Co., Rachael Beltz 1	¶	4210

NORTHWESTERN OHIO

Company, Well and Location	Init. Prod. Bbls.	Depth
OTTAWA COUNTY—		
Charles Shell, Wm. Kuhlman 2	9	1296
WYANDOT COUNTY—		
Wyanco Oil Co., Dave Fernbaugh 1	10	1445
Gregg & Co., Dave Gibson 1	*	1379

INDIANA

Company, Well and Location	Init. Prod. Bbls.	Depth
POSEY COUNTY—		
L. R. Henley, Lorenz Luigo 1	60	....

KENTUCKY

Company, Well and Location	Init. Prod. Bbls.	Depth
HANCOCK COUNTY—		
Miles & Co., W. Bailey 1	50	....
Jos. B. Mayer, J. W. Matthews 4	170	....
OHIO COUNTY—		
Stewart & Co., Jasper Roberts 1	70	....
Jasper Roberts 2	100	....
Mecca Oil Co., Frank Richards 1	*	320
W. E. Hupp & Co., J. W. O'Dell 2	175	....
J. W. O'Dell 3	125	....
Snowden-McSweeney, Peckenpaugh 2	125	....

*Failures; †Junked; ¶Million cu. ft. gas.

Michigan Completions Include New Gas Discovery

Mt. Pleasant, Mich.—Sixteen completions in Michigan for the week included nine oil wells with a combined initial of 2192 barrels, two gas wells with a combined initial of 5,750,000 feet, and five failures.

The outstanding new development was completion of Old Dutch Oil and Gas Company's Fargar 1, Montcalm County wildcat test for 5,500,000 feet of gas from the Michigan Stray sand at 1259 feet. The test located in Belvidire township, NE SE NE Section 11, appears to have opened either a new gas pool or may show an extension eight miles southeast of the Columbia Oil Company wildcat gasser in Hinton township of Mecosta County. Fargar 1 originally was started as an oil test projected for the Traverse or deeper Dundee horizons. Operators, however, have decided to tube and cap the gasser in the Michigan Stray sand.

While drilling in proven areas of Michigan showed signs of slackening off this week as compared to a relatively high point maintained through the early part of the year, approximately 140 tests in proven and wildcat areas are either on location or drilling in Michigan. Of this number 40 are definitely wildcat tests. The major wildcatting extends over Mecosta and Montcalm Counties with 20 tests drilling.

Gas drilling, both in proven and wildcat acreage, has increased during the past month.

Completions for the week follow:

Company, Well and Location	Init. Prod. Bbls.	Depth
MIDLAND COUNTY—		
Columbia & Gordon, Hale 3, Porter twp., sw sw sw Sec 21	320	3421
McClanahan Oil Co., Oliver 1, Porter twp., se sw se Sec 23	*	3473
Pure Oil Co., Wyant 7, Porter twp., se nw sw Sec 16	350	3425
Bond A-4, Porter twp., sw sw sw Sec 7	30	3417
Howland 2, Porter twp., nw nw nw Sec 23	50	3420
Strange & Fortney, Campbell 5, Porter twp., se nw se Sec 18	1200	3418
Campbell 6, Porter twp., se ne se Sec 18	450	3415
Sayer & Weilsch, Otway B-1, Porter twp., nw nw ne Sec 27	15	3445
Wells Bros., William B-1, Porter twp., nw nw nw Sec 27	75	3440
ISABELLA COUNTY—		
W. J. Bernier, Duncan 1, Vernon twp., ne sw sw Sec 9	*	3880
Atha Oil Co., Mahar B-2, Vernon twp., ne nw Sec 36	¶¼	1308
Wittmer Oil Co., Archer 1, Isabella twp., w½ se Sec 11	2	3884
MONTCALM COUNTY—		
Theodore Oil Co., Sherwin 1, Home twp., sw sw sw Sec 13	*	3495
Old Dutch Oil Co., Fargar 1, Belvidire twp., ne se ne Sec 11	¶5½	1259
CLARE COUNTY—		
McClanahan Oil Co., Frackelton 1, Lincoln twp., se se se Sec 18	*	3994
LAPEER COUNTY—		
Gordon Oil Co., Smith 1, Arcada twp., ne nw se Sec 4	*	2383

*Failures; †Junked; ¶Million cu. ft. gas.

Drilling Reports on Important Wildcats

CALIFORNIA

KERN COUNTY

BUENA VISTA HILLS — E. C. Arnold's No. 1, 34-31-24, td 4165 ft, resetting 16-in csg 524 ft, old string went bad.

COMANCHE POINT—Comanche Oil Co.'s No. 1, 15-32-29, dr gray sand 4127 ft. Tejon Ridge Oil Co.'s No. 1, 23-32-29, sd 200 ft.

EDISON—Lee Oil Co.'s Edison-Seale 1, 5-30-29, lcn. Mitchell-MacMillan Co.'s No. 1, 8-30-29, rig. Mountain View Dev. Corp.'s Spangler 1, 12-30-28, sd 4300 ft. Ohio Oil Co.'s Vauley 1, 36-30-29, lcn.

LOST HILLS — Associated Oil Co.'s Williamson 1, 2-26-20, td 7858 ft, pb to 6850 ft, swabbed mud and water, to further test.

McKITTRICK—Standard Oil Co.'s No. 45, 15-30-22, td 3653 ft, pb to 3455 ft, to straighten hole. Welport Oil Co.'s No. 105, 26-29-21, to test on pump 1195 ft.

MT. POSO—Associated Oil Co.'s Fortine 1, 30-27-28, rig. Ohio Oil Co.'s Brown 1, 22-27-27, lcn.

No. SEMITROPIC — S. T. Alexander's Shields 1, 29-25-21, sd 1426 ft.

PIONEER ANTICLINE—Fisher & Welton's Harris 1, 35-11-23, sd 1156 ft.

TEMBLOR HILLS—Robt. Foster's No. 1, 2-32-22, dr shale 1008 ft.

WHEELER RIDGE—Badger Oil Co.'s El Tejon 1, 31-1-19, sd 6001 ft.

KINGS COUNTY

AVENAL—Carl Weller's Baby King 2, 11-23-16, co 1425 ft.

ALPAUGH—Trico Oil & Gas Co.'s Magee & Stone 1, 33-24-22, dr sandy shale 3100 ft.

TULARE LAKE DIST. — Armadillo Gas Co.'s No. 1, 32-22-20, wocs 1745 ft. Commonwealth Cons. Gas Co.'s No. 1, 21-22-20, dr shale 1932 ft; No. 2, rig. Tulare Basin Gas Co.'s No. 2, 2-33-19, sd 1208 ft.

TULARE COUNTY

ALPAUGH—Mastodon Oil Co.'s No. 1, 27-24-23, material on lcn.

MADERA COUNTY

DOS PALOS—Pure Oil Co.'s Chowchilla 1, 7-10-14, dr sand and shale 5360 ft.

SAN JOAQUIN COUNTY

TRACY—Milham Exploration Co.'s Connolly 1, 5-4-5, td 5800 ft, cemented 6¼-in csg 4970 ft, perforated 4350-4450 ft, swabbed small amount gas, testing for leak in csg.

SANTA BARBARA COUNTY

GOLETA—Shell Oil Co.'s Bishop 1, 20-4-29, dr sand and shale 1902 ft. Hastain Stone's Simonds-Campbell 1, 9-4-28, sd 2785 ft.

LOMPOC—Lompoc Pet. Co.'s Beauterbaugh 2, 18-7-34, fsg 2975 ft.

LOS ALAMOS—Petroleum Securities Co.'s Hancock-Los Alamos 1, 31-8-32, rur.

SANTA MARIA—Union Oil Co.'s Moretti 1, 24-10-34, pumped 30 bbls, 16.8 gravity oil on test, td 2389 ft.

SISQUOC—Royalty Service Corp.'s Sisquoc 1, bldg roads.

SAN LUIS OBISPO COUNTY

CHOLAME—Willett Oil Assn.'s Jack 2, 10-24-14, dr shale 2175 ft.

NORTH MIDWAY — Midway Peack Oil Co.'s No. 1, 3-32-22, dr shale 1153 ft showing oil.

VENTURA COUNTY

CONEJO—American Oil Co.'s Powell 1, 33-2-20, sd 3060 ft, to drop from report.

HOPPER CANYON—Commander Oil Co.'s No. 6-F, 13-4-19, spudded 7/15, sd. Hancock Oil Co.'s Hadley 5, 13-4-19, co 3357 ft. Oil Ridge Oil Co.'s Moran 3, 1-4-19, r 973 ft.

LAS POSAS—Las Posas Pet. Co.'s Mahan 1, 22-3-20, td 7370 ft, pb to 6750 ft, sd.

OJAI—A. N. Macrate's Cosmon 1, 27-4-23, deepening from 5056 ft in Sespe shale. Rancho Oils' Rancho Santa Ana 1, 18-4-23, rig.

PIRU—Bolsa Chica Oil Corp.'s Snow 1-A, 4-4-18, sd 2497 ft, to redr. Piru Oil Co.'s Holser 1, 14-4-18, dr shale 920 ft.

SANTA PAULA—J. W. Mosher's No. 1, 22-4-21, co 2115 ft.

SESPE—H. A. Ivers' No. 11, 1-4-20, co 1475 ft. Merchants Pet. Co.'s Cochran 4, 1-4-20, redr 819 ft, td 1280 ft. Sullivan & Roberts' No. 1, 28-4-19, wocs 7⅝-in csg 475 ft, td 804 ft, showing oil. Topa Topa Oil Co.'s No. 1, 33-5-19, co 3030 ft.

SHIELDS CANYON—The Texas Co.'s No. 128, 4-3-19, dr shale 1075 ft.

SIMI—American Drilling Co.'s No. 1, 6-2-17, dr shale 530 ft. C. L. Anderson's No. 13, 36-3-18, wocs 8⅝-in csg 945 ft, td 950 ft. Williamson & Danaker's No. 1, 36-3-18, sd 1010 ft.

SULPHUR MOUNTAIN—Wm. A. Kirk's No. 5, 21-4-22, dr brown shale 2150 ft.

MISCELLANEOUS

FRESNO COUNTY—G. & E. Dev. Co.'s No. 1, 36-16-14, rigged and idle. Western Gulf Oil Co.'s S. P. L. 1, 15-17-15, td 8868 ft, swabbed some oil, may abn. Bergman Oil Co.'s Oro Loma 1, 12-12-11, fsg 6006 ft. Russ Oil Synd.'s No. 1, 28-12-11, sd 4020 ft.

YOLO COUNTY—Pacific Northern Gas & Oil Co.'s No. 1, 23-12-3, sd 6770 ft, to drop from report until active again.

SOUTHERN CALIFORNIA

ARTESIA DIST.—Vanco Dev. Co.'s Millard 1, 25-3-12, rig.

ATHENS DIST.—John W. Sherman's Johnson 1, 2-3-14, lcn. Woodward Oil Co.'s No. 1, 12-3-14, cored streaks oil sand 4500 ft, dr 4775 ft.

BREA CANYON — Pressley-Perry-Tull's Baird 1, 30-2-9, dr hard sandy shale 3130 ft.

CARBON CANYON—Tehama Pet. Corp.'s Kramer 1, 33-2-8, dr hard sandy shale 2340 ft.

EAST RICHFIELD—Midrich Drilling Co.'s dr sandy shale, thin streaks oil sand 2667 ft.

FAIRVIEW DIST. — Explorers Drilling Co.'s Norris 1, 9-6-10, sd 960 ft. Speik Oil Co.'s Derby 1, 9-6-10, sd 1055 ft, to drop both from report.

FULLERTON—Union Oil Co.'s Fullerton Heights 1, 22-3-10, dr sandy shale 5170 ft.

HERMOSA BEACH—Oklahoma Oil & Gas Corp.'s No. 1, rur.

HUNTINGTON BEACH (On Tidelands)—Black Eagle Oil Co.'s No. 1-B, permit 194, 32-5-11, sd 3987 ft to redr from 1800 ft.

NEWPORT—Platt & Collins' No. 1, 14-6-10, dr hard shale 1560 ft. Pioneer Drilling Co.'s Banning 3, co 6450 ft.

NO. LONG BEACH — Geo. L. Clayton's No. 1, 31-3-12, sd 6630 ft.

PICO—Frontier Oil Co.'s No. 1, 12-2-12, wocs 12½-in csg 500 ft, td 1460 ft.

SAUGUS—International Oil Dev. Co.'s Powell, 34-5-16, dr hard gray sand 2460 ft.

SURF—W. G. Bradford's B. B. 1, 19-6-10, material on lcn.

WEST WHITTIER — Midfield Oil Co.'s Walker 1, 19-2-11, ran tester, found oil sands 4050-55 ft and 4110-55 ft, td 4867 ft, to test.

SAN BERNARDINO COUNTY — Great American Pet. Co.'s Gapco A-1, 18-2-8, sd 2725 ft; Gapco B-1, sdtr, td 3100 ft; Gapco D-1, rig.

SAN DIEGO COUNTY—San Diego Gas & Pet. Corp.'s No. 1, 32-18-2, wocs 11¾-in csg 4020 ft, td 4075 ft.

OKLAHOMA

ALFALFA COUNTY—Tex-O-Kan Development's Acre 1, csw ne 14-24n-11w (owdd), td 6460 ft, swab to 5530 ft, recovered 40 bbls oil & water, sd.

ATOKA COUNTY—L. A. Fitts' Blankenship 1, ne nw 19-3s-10e, td 651 ft, machine moved out. Malernee et al's Greenville National Bank 1, nw se 36-2s-13e, td 2150 ft, sd. Brookshire et al's Rowland 1, nw ne ne 18-3s-10e, dr 3691 ft. T. C. Ramler et al's William Roberts 1, sw se sw 6-2s-12e, dr 145 ft.

BECKHAM COUNTY—Price & Watchorn's Heard 1, ne sw 17-8n-26w, dr 1508 ft.

BRYAN COUNTY — Paul Richardson's Ayers 1, ne se 30-7s-8e (owdd), td 1005 ft, hfw, D&A.

CADDO COUNTY—Denver P&R's Noe 1, nw sw sw 34-10n-10w, drill pipe stuck 11,230 ft, sd.

CARTER COUNTY—Hudson and Poland's Sullivan 1, ne se 5-5s-1w, dr 3720 ft. George Pace et al's M. Jack 1, ne nw nw 10-4s-4w, sd. Daphine Oil Co.'s Hooks 1, se nw nw se 5-1s-2w, sd 1350 ft. McHenry et al's Ratliff 1-A, nw sw 28-1s-2w, 6 bbls oil, rigging up to pump.

CLEVELAND COUNTY—Phillips Petroleum Co. et al's Community-Baker 1, cse nw 11-9n-2w, dr 7177 ft.

COMANCHE COUNTY — F. F. Stevens' Green 1, se sw 2-1n-13w, sd 1120 ft. Heiden-Taylor's Crutcher 2, cnw 11-1n-12w, so & w in granite at 650 ft, dr 660 ft.

COTTON COUNTY—Ben Russell's Fowler 1, se nw 21-4s-12w, sd 3570 ft.

GRADY COUNTY—Mid-Western Oil, Inc.'s Carter 1, nw ne se 32-3n-7w, dr 2425 ft.

HARPER COUNTY—Sinclair Prairie's Neff 1, nw se 21-26n-24w, sd 265 ft.

HUGHES COUNTY—Olympic Oil Co.'s McCaslin 1-A, se nw nw 12-9n-8e, td 3442 ft, 142 bbls 7 hrs. Smith et al's Farmer 1, ne nw 32-5n-9e, co. Turner et al's Williams 1, sw sw sw 35-7n-10e, rig.

JACKSON COUNTY—Gypsy Oil Co.'s Kelly 1, nec 10-1n-20w, (owpb), td 1673 ft, one flow of 20 bbls, to plug & drill twin well. Gypsy Oil Co.'s 1-A (twin), ne ne ne 10-1n-20w, cellar & pits.

JOHNSTON COUNTY — Oklahoma Oil Corp.'s Maytubbi 1, sw ne se 11-2s-8e, td 2450 ft, sd.

KAY COUNTY—Carter Oil Co.'s Cline 1, se sw se 16-28n-5e, dr 1760 ft.

KINGFISHER COUNTY—Jadeka Development Co.'s Frakes 1, csw ne sw 16-15n-6w, dr 5112 ft.

KIOWA COUNTY—Bailey & Johnson's Potts 1-A, cel nw nw sw 31-7n-14w, so 330 ft, hfw, ur 8-in csg.

LEFLORE COUNTY—East Oklahoma O&G

ABBREVIATIONS

The following abbreviations, signs, etc., are used in completion and wildcat reports in THE OIL WEEKLY.

* —*dry hole, abandoned well.*	owdd —*old well drilling deeper.*
‡ —*salt water (completions).*	owpb —*old well plugging back.*
† —*junked and abandoned.*	pb —*plugged back or plugging back.*
¶ —*million feet of gas.*	r —*reaming.*
abd —*abandoned.*	rog —*rig on the ground.*
bbls —*barrels.*	rur —*rigging up rotary tools.*
br —*building rig.*	rust —*rigging up standard tools.*
b.s. —*basic sediment.*	sd —*shut down.*
csg —*casing.*	sdtr —*sidetracking.*
co —*cleaning out.*	sg —*show gas.*
dd —*drilling deeper.*	si —*shut in.*
dk —*derrick.*	so —*show oil.*
dr —*drilling.*	so & g —*show oil and gas.*
fsg —*fishing.*	spd —*spudding.*
ft —*feet.*	sr —*straight reaming.*
hfw —*hole full of water.*	sw —*salt water.*
in —*inches.*	td —*total depth.*
lcn —*location.*	ur —*underreaming.*
m —*milling.*	wih —*water in the hole.*
mim —*moving in materials.*	wo —*workover.*
mit —*moving in tools.*	wocs —*waiting on cement to set.*
mot —*milling on tools.*	wosr —*waiting on standard rig.*
n, s, e, w, —*north, south, east, west.*	
oih —*oil in hole.*	

Co.'s Metcalf 1, swc 2-4n-26e, td 1575 ft, co. Murdock et al's Fee 1, sw ne sw 15-5n-25e, fsg 2425 ft.

LINCOLN COUNTY—L. G. Hulse's Sloan 1, sw nw se 19-17n-3e, co new hole 843 ft. The Texas Co.'s Gessman 1, se ne 33-14n-4e, ripped csg 3040 ft, est. 10 million gas, good show oil from Cleveland sand. Mid-Continental Co.'s Bolby 1, cse sw 27-12n-2e, rigged up, laying gas line.

LOGAN COUNTY—W. N. Anthony's Fruin-Eckman 1, se sw 4-16n-1e, set 8-in at 4181 ft, wocs. Gypsy & Sinclair Prairie's Graham 1, cnw nw 3-17n-4w, cellar.

McCLAIN COUNTY—Denver P&R Co.'s Newborn 1, cse sw 22-5n-1e, 6300 ft in Simpson.

MURRAY COUNTY—T. E. Revels et al's Wolfe 1, nec 18-1n-2e, dr 2529 ft. Gilcrease Oil Co.'s Brown 1, swc 26-1n-2e, dr 1738 ft.

NOBLE COUNTY—Magnolia's Crawford 1, se nw 27-21n-2e, dr 4418 ft. Continental Oil Co. et al's Bennett 1, se nw 19-20n-1w, td 5232 ft, sd. Vaughn Development Co.'s Loula 1, ne se sw 16-22n-1e, dr 920 ft. Stanolind et al's Voss 1, sw ne se 28-22n-2w, td 4919 ft, pb to 4880 ft, flow 1296 bbls.

OKFUSKEE COUNTY—Delton Oil's Fixico 1, se c 7-11n-8e, dr 3782 ft. Carter Oil Co.'s W. H. Dill 1, cnw se 2-1n-8e, td 3083 ft, preparing to core.

OKLAHOMA COUNTY—Gypsy Oil Co. et al's Community-Grant 1, cse nw 27-13n-4w, td 7482 ft, drlg plugs. Springrose Development Co.'s Edwards 1, cse se 19-11n-1e, 400 ft drill pipe in hole, td 6540 ft in shale, sd.

OSAGE COUNTY—Empire Oil & Refining Co.'s 1, se ne 3-25n-3e, dr 3605 ft. Peters Petroleum Co. & Norbla O&G Co.'s 1, swc 15-25n-5e, td 1712 ft, sd for water. Norbla O&G Co.'s 1, nw se 31-24n-7e, td 2860 ft, D&A.

PITTSBURG COUNTY—Arkoma's Cummings 1, nw ne se 29-4n-14e, dr 1490 ft.

PONTOTOC COUNTY — Riddle et al's Barnes 1, se nw se 21-5n-4e, td 2910 ft, sd for water. Boyle et al's Newborn 1, se ne 31-5n-4e, td 2240 ft, sd. Jarnett Petroleum's Johnson 1, se nw 28-4n-4e, td 1100 ft, rebuilding rig. Dandridge et al's Stafford 1, nwc 5-1n-6e, sd 680 ft. Gillette & Kroeger's Duver 1, nw se 1-1n-6e, dr 290 ft. Paul R. Robb's Vittetoe 1, cne se 11-5s-4e, td 1936 ft, sd for water.

POTTAWATOMIE COUNTY — Stanolind O&G Co. & Amerada Petroleum Co.'s Goodman 1, se ne ne 5-10n-4e, td 4385 ft, changing from electric to steam rotary tools. Phillips-Gypsy et al's Flynn 1, ne nw 17-6n-3e, Belle City 2760 ft, dr 4095 ft.

SEMINOLE COUNTY—Wrightsman Oil Co.'s Smith 1, nw se 25-10n-7e, dr 3490 ft. Moran et al's Brindle 1, sw ne 27-6n-5e, rig. W. D. Griss et al's Kenyon 1-A, cne se 24-8n-4e, rig. Harmon Oil's Bowlegs 1, se ne sw 1-7n-7e, td 1655 ft, co. Harris-Haun's Harjo 1, ne se nw 11-6n-6e (owdd), otd 2935 ft. Tate & Starbuck, Heard 1-A, se nw 9-6n-7e, dr 216 ft in new hole.

STEPHENS COUNTY—Carter Oil Co.'s Hilderbrand 1, csw se ne 1-3s-7w, so 1023-26 ft, td 2372 ft, repairing engine. Carter Oil Co.'s T. H. McCasland 1, cnw nw sw 22-1s-4w, rig, waiting on tools.

WASHITA COUNTY—Anadarko Basin's Ash Wolf 1, ne sw 23-9n-17w, ru & sd. Oklahoma Mid-Western's Dock 1, sw c 21-8n-18w, dr 2340 ft.

KANSAS

BARBER COUNTY—Lario et al's Whalen 1, cnw 32-31s-11w, ½ M gas 4358 ft, dr 4395 ft. I. T. I. O. et al's George 1, cse sw 12-33s-10w, dr 2080 ft.

BARTON COUNTY—Atlantic Oil Prod. Co.'s Straub 1, cse nw 36-18s-11w, so 3220-25 ft, dr 3265 ft. Harris-Haun & J. Brouk's Dietz 1, se se se 21-16s-15w, set 12-in cas 1057 ft, co. Atlantic Oil's Vaniman 1, cse ne 15-20s-12w, lcn. Gypsy, Atlantic & Shell's Batchman 1, csw ne 18-20s-11w, rig. National Refining Co.'s Ingersoll 1, cne ne 2-19s-13w, set 15-in cas 698 ft, td 1842 ft, sd. Murphin & Downing's Lanterman 1, nw se 15-19s-11w, rig and timbers.

CLARE COUNTY—Seidel Bros.' Younker 1, cs/2 se nw 21-9s-4e, sd.

COWLEY COUNTY—Roth & Farrout's Fox 1, se sw 35-30s-7e, dr 2016 ft, sd. National Refining's Robinson 1, ne se ne 11-34s-4e, dr 1690 ft.

DICKINSON COUNTY—Dutch Oil Co.'s Phillips 1, cne nw 15-15s-1e, set 10-in at 1650 ft, dr 2025 ft.

ELLSWORTH COUNTY — Elwell et al's Campbell 1, sw cor 20-17s-7w, rig.

GREENWOOD COUNTY—McGinnis' Sample 1, ne ne se 16-25s-10e, td 2125 ft, hfw, D&A. Greeley et al's Salter 1, sw se sw 28-25s-12e, dr 265 ft.

HARPER COUNTY—Wood Brothers' Anthony 1, csw sw 17-31s-9w, td 4233 ft, co.

HARVEY COUNTY—Hollow et al's Swafford 1, nw ne nw 8-22s-1w, dr 1755 ft.

KINGMAN COUNTY—W. C. McBride's Wooleridge 1, nw ne 16-27s-7w, td 1800 ft, ur 12-in csg.

McPHERSON COUNTY—Palmer & Phillips' Moddelmog 1, ne ne nw 8-21s-1w, rig.

NEMAHA COUNTY—Rose Oil et al's Penwell 1, ne nw se ne 16-3s-3e (owdd), otd 1720 ft, ru & sd.

RENO COUNTY—Sinclair Prairie Oil Co.'s Shepherd 1, se nw 22-26s-9w, dr 4350 ft. L. H. Wentz's Metcalf 1, se ne sw 2-24s-7w, set 8-in csg 3335 ft, dr 3370 ft.

RICE COUNTY—Langston et al's Markle 1, ne ne sw 1-20s-9w, sd 2425 ft. Robertson et al's Johnson 1, nw sw 22-19s-8w, set 10-in at 2208 ft, dr 2380 ft. Reserve Development Co.'s Heinz 1, ne sw se 8-18s-10w, pump 20 bbls per day, may abandon. Deitrick et al's Fitzpatrick 1, cne ne 30-21s-8w, set 10-in csg 1785 ft. Elwell et al's Porter 1, ne nw 5-18s-7w, sd 240 ft. Gypsy Oil Co.'s Gibson 1, sw nw ne 4-21s-10w, br. Darby et al's Taylor 1, nw se sw 25-19s-8w, rig.

ROOKS COUNTY—Ashby et al's Doughty 1, csw sw 15-8s-19w, dr 2710 ft. Phillips Petroleum Corp.'s Depita 1, csw sw 31-8s-17w, potential gauge 44 bbls oil, 39 bbls water, comp.

RUSSELL COUNTY — Lario Oil & Gas Co.'s Neidenthal 1, nec 23-14s-15w, dr 845 ft.

SEDGWICK COUNTY—Trees Oil Co. & Derby Oil Co. et al's McMinn 1, nw sw ne 36-26s-1e, sd 2219 ft. Cromwell-Lewis' Hammon 1, sw nw 23-27s-2w (owdd), set 6-in csg 3334 ft. Sovereign Oil Co.'s Nichols 1, cnw se 20-25s-1w, set 5-in csg 2695 ft, dr 2700 ft. Jones, Kirk et al's McQuillan 1, ne nw ne 21-29s-2w, rig.

SUMNER COUNTY—Morgan & Flynn's Mercer 1, nw ne nw 36-32s-1w, td 3706 ft, so, sd. Wentz & Continental's Small 1, nw sw 5-33s-4w, dr 1365 ft.

TREGO COUNTY—Alma Petroleum Co. et al's Rhodes Estate 1, csw sw 14-11s-23w, dr 4200 ft. Mid-Kansas Oil Co.'s Kline 1, sw se 19-14s-24w, dr 1035 ft.

MICHIGAN

MIDLAND COUNTY—Greendale Lee Oil Dev.'s Hitsman 1, Lee twp, Sec. 13, sd 2550 ft. Howard Patterson's Haskins 1, Ingersol twp, Sec. 26, sd 840 ft. W. J. Sovereign's Mode 1, Geneva twp, Sec. 25, lcn.

ISABELLA COUNTY—Michigan Gas & Oil Co.'s Hanson 1, Rolland twp, Sec. 33, rog. Lupher Drilling Co.'s Baer 1, Broomfield twp, Sec. 33, driving pipe 425 ft.

OGEMAW COUNTY — McClanahan Oil Co.'s Boutell 1, Ogemaw twp, Sec. 5, dr 325 ft. C. A. Perry's Wobig Heirs 1, Mills twp, Sec. 6, dr 2400 ft. W. C. Mee's Gibbs 1, Mills twp, Sec. 30, sd 2285 ft. Burks White's Canard 1, Mills twp, Sec. 22, rog.

MONTCALM COUNTY—Walter & Miller's Durbin 1, Crystall twp, Sec. 11, lcn. Rex Oil & Gas Co.'s Johnson 1, Home twp, Sec. 17, r 3150 ft; Albaugh 1, Home twp, Sec. 34, dr 2100 ft. Norther Oil Co.'s Robinson 1, Richland twp, Sec. 27, sd 460 ft; McGilvery 1, Richland twp, Sec. 34, sd 1300 ft. Tope-Voorhees-Blunt's Neff Ranch 1, Day twp, Sec. 22, dr 500 ft. Atha Oil Co.'s Davenport 1, Ferris twp, Sec. 16, dr 1900 ft. Mammoth Petroleum Co.'s Thomas 1, Home twp, Sec. 11, sd 500 ft. Garfield Oil and Gas Co.'s Wymer 1, Home twp, Sec. 11, dr 1135 ft. Allen Park Oil and Gas Co.'s Stephens 1, Home twp, Sec. 36, dr 125 ft.

MECOSTA COUNTY—Hall La Mee Synd.'s Oliver 1, Martiny twp, Sec. 13, dr 550 ft. Bryan and Martin's Sheets 1, Millbrook twp, Sec. 35, sd 325 ft. Columbia Oil and Gas Co.'s Hutchinson 1, Hinton twp, Sec. 14, dr 1140 ft. Colmur Synd.'s Sapp 1, Morton twp, Sec. 6, sp and sd.

GRATIOT COUNTY — Mid State Dev.'s Yost 1, Bethany twp, Sec. 27, sd 3378 ft, sw in Dundee, may deepen for Monroe test.

GLADWIN COUNTY—Atlas Drilling Co.'s Cronk 1, Gladwin twp, Sec. 23, sd 125 ft. M. F. Whitehall's Kintner 1, Beaverton twp, Sec. 11, driving pipe 120 ft.

ARENAC COUNTY — Oil State Corp.'s Sheffer 1, Mason twp, Sec. 18, Dundee 2635 ft, dr 2650 ft. Oak Oil Co.'s Standish Bank 1, Standish twp, nw nw sw Sec. 19, lcn.

BAY COUNTY—A. H. Webber's Wasbinski 1, Kawkalin twp, Sec. 10, dr 750 ft. Ward J. Blunt's Koczara 1, Pinconning twp, nw ne nw, Sec. 17, lcn.

HILLSDALE COUNTY—B. D. Chandler's Brickner 1, Wright twp, Sec. 11, sd 1050 ft. Chas. Anderson's Cousens 1, Jefferson twp, Sec. 14, sd 835 ft.

NEWAYGO COUNTY—Newaygo Prospecting Co.'s Grass Lake 1, 16n-11w, Sec. 7, sd 3560 ft. Newaygo Oil Co.'s Bates 1, Sherman twp, Sec. 12, dr 6560 ft. Muskegon Dev.'s Kolbe 1, Beaver twp, Sec. 31, dr 150 ft.

SAGINAW COUNTY — Chapin Oil Co.'s Sutlif 1, Chapin twp, Sec. 16, sd 950 ft. Fred Stork's Poultry Farm 1, Richland twp, Sec. 33, sp. Smith Pet. Co.'s Cement 1, Swan Creek twp, Sec. 8, lcn.

MISCELLANEOUS—Osceola County: Sun Oil Co.'s Marble 1, Evart twp, Sec. 8, csg 8-inch 1150 ft. Shiawassee County: John F. Hurleys' Van Pelt 1, Rush twp, Sec. 35, rog. Lenawee County: P. D. Snavely's Lindsay 1, Madison twp, Sec. 6, sp. Wayne County: Drake & Parson's Drake 1, Ecorse twp, Sec. 36, r 1615 ft. Eaton County: W. J. Bernier's Woodruth 1, Benton twp, Sec. 5, sd 3083 ft. Genesee County: Power Oil Co.'s Bonnar 1, Flint twp, se nw nw, Sec. 33, lcn.

COLORADO

BOULDER COUNTY—L. R. Steele Coles 1, nw nw ne 33-1n-70w, spd.

GRAND COUNTY—Colorado Oil Refining Co.'s Linke 1, ne sw se 13-1n-77w, dr 850 ft, sg at 735-65 ft.

LARIMER COUNTY—Eastman & Deininger's Cement 1, ne se nw 30-5n-69w, dr 520 ft.

PARK COUNTY — South Park Oil Co.'s State 1, se se sw 16-11s-75w, rigging up.

PROWERS COUNTY—Trojan Oil & Gas Co.'s Lotus 1, nw ne ne 15-23s-46w, Lamar district, dr 3400 ft.

ROUTT COUNTY—Colorado Oil Refining Co.'s State-Oliver 1, se se nw 18-6n-86w, lcn.

MONTANA

GLACIER COUNTY—Producers Development Syndicate's Helgason 1, se ne 7-33n-5w, td 2785 ft, D&A. Barmac Producing Co.'s Bruning, c sw sw 1-31n-5w, dr 2400 ft.

TETON COUNTY—E. K. Cheadle, Jr., and Bruce Radigan's Balsinger 1, ne se nw 20-27n-5w, dr 2150 ft.

UTAH

DAGGETT COUNTY—Ohio Oil Co.'s Murphy 2, se ne 21-3n-24w, lcn.

EMERY COUNTY—Ramsey Petroleum Corporation's Weightman 1, ne sw 18-26s-7e, running 8¼-in csg to 2123 ft.

WYOMING

BIG HORN COUNTY—J. W. Bales et al's Parker 1, c sw sw 23-49n-89w, spd.

CARBON COUNTY—Earl W. Reader, Inc.'s Union Pacific 2, c sw sw 19-20n-83w, dr 5150 ft.

CONVERSE COUNTY—John Ackard's Daniels 1, sw se 17-32n-71w, dr 935 ft.

FREMONT COUNTY—Monongahela Oil Co. and Sidney H. Keoughan's Wisda 1, ne se se 13-28n-83w, dr 3700 ft. Mid American Oil Co.'s Test 1, s½ ne sw 23-49n-89w, dr 887 ft.

HOT SPRINGS COUNTY—California Exploration Co.'s Government 1, ne se ne 12-44n-97w, dr 2000 ft.

NEW MEXICO

EDDY COUNTY—Getty Oil Co.'s Cook-Ironsides 2, sw sw 8-20s-29e, Twin Mounds structure, approximately two miles east of the Getty pool, was completed for 20 barrels high gravity crude, td 1160 ft.

WEST TEXAS

ANDREWS COUNTY—Honolulu Oil Co.-Llano Oil Co.'s J. E. Parker 1, Sec. 7, Blk. A-44, dr 1775 ft. Humble O&R Co.'s R. M. Means 1, Sec. 2, Blk. A-35, elev 3166 ft, top anhydrite 1865 ft, top Yates sand 2840 ft, top brown lime 3845 ft, top white lime 3935 ft, so&g, dr soft lime 4380 ft; B. S. Walker 1, rig.

BORDEN COUNTY—Continental Oil Co.'s Clayton-Johnston 1, Sec. 34, Blk. 32, T-4-N, dr 2235 ft.

BREWSTER COUNTY—C. M. "Dad" Joiner et al's W. J. McEntire 1, sd 1700 ft.

COKE COUNTY—W. Monroe Hooper et al's S. W. Gaston 1, ur 2550 ft.

CROCKETT COUNTY—A. R. Eppenauer Drlg. Co.'s J. W. Owen 1, Sec. 12, Blk. "GG", T&NO Ry, sur, sd hfw 1020 ft.

CRANE COUNTY — Cordova Union Oil Corp.-Jax Cowden's Cowden 1, Sec. 13, Blk. "X", elev 2524 ft, salt 1140-1770 ft, so and dr brown lime 3332 ft. Gulf Prod. Co.'s E. N. Snodgrass 1, Sec. 1, Blk. B-25, Waddell area, top salt 1195 ft, dr 2600 ft.

CULBERSON COUNTY — Anderson-Prichard Oil Corp.'s M. W. Borders 1, Sec. 34, Blk. 69, dr 345 ft.

DAWSON COUNTY—Ray A. Albaugh et al's John Robinson 1, sd 2380 ft.

ECTOR COUNTY — Landreth Prod. Corp. et al's Clarence Scharbauer 1, elev 3162 ft, top salt 1465 ft, top lime 3710 ft, sd woc 3765 ft.

FISHER COUNTY—E. T. Campbell et al's W. R. Bishop 1, materials. Merry Bros. & Perini, Inc.'s, R. L. Dean 1, sp and sd.

GLASSCOCK COUNTY—Steve C. Currie-Wahlenmaier Pet. Corp. et al's Joe Calverly-Underwood 1, Sec. 24, Blk. 36, T&P Ry. sur, elev 2697 ft, top anhydrite 1330 ft, top salt 1400 ft, dr 2175 ft. John I. Moore Pet. Corp.-Loffland Bros. et al's L. S. McDowell 1, Sec. 22, Blk. 34, T-2-S, Ordovician test, elev 2534 ft, top lime 2137 ft, dr 3625 ft. Moore Bros. et al's J. J. Hubbard-Daniel (Gulf) 1, Sec. 16, Blk. 34, dr 500 ft.

TOM GREEN COUNTY—Southwestern Exploration Co.'s J. W. Bennett 1, elev 1792 ft, sg 2533-2536 ft, dr 2675 ft.

IRION COUNTY—Melrose Oil Co.'s J. D. Sugg 1, sp and sd. J. P. Williams & D. M. Short's D. S. Gentry 1, sd hfw 1450 ft.

JONES COUNTY—Campbell & Elzey's J. N. Herndon 1, rig.

MENARD COUNTY—Jas. L. Duffy et al's W. J. Wilkinson 1, sp and sd.

PECOS COUNTY—Tex-Mex Pet. Corp.'s G. W. Walling 1, dr 1920 ft. Trans-Texas Oil Co.'s C. M. Caldwell 1, sd 320 ft.

PRESIDIO COUNTY — Linderman Bros. Oil Corp.'s R. I. Bledsoe 1, Sec. 15, Blk. 351, GC&SF Ry. sur, co 507 ft.

REAGAN COUNTY — E. P. Kirschner et al's W. H. White-McIntosch 1, top lime 2809 ft, sd 3165 ft. Skelly Oil Co. et al's University-Utah 1-D, Sec. 33, Blk. 8, Ordovician test, rig. J. P. Williams et al's J. R. Scott-Atlantic 1, elev 2587 ft, top salt 1150 ft, sd 2663 ft.

REEVES COUNTY—Hugo Freels Oil Co.'s I. B. Greenman 1, sd 3985 ft. J. E. Cunningham & A. R. Eppenauer Drlg. Co.'s Tiller Bros. 1, R. P. Altman sur, sp and sd. Grisham-Hunter Corp.'s Fee 1-A, dr 3775 ft.

RUNNELS COUNTY—Daniels et al's W. F. James 1, dr 1415 ft. Melrose Oil Co.'s Mrs. L. P. Wood 1, sd 1430 ft. W. D. Sawyer et al's H. Giesecke-Russell 1, D&A, hfw 2295 ft. F. D. Willamson et al's J. L. Elkins 1, sd 1400 ft.

SCHLEICHER COUNTY—J. M. Cooper et al's Bert Page 1, Sec. 40, Blk. "L", GH&SA Ry. sur, Ordovician test, elev 2270 ft, first gas at 5337 ft, making gas, sd for acid treatment, td 5635 ft. Humble O&R Co.'s Ike Honig 1, Sec. 38, Blk. "M", GH&SA Ry. sur, Ordovician test, rur 609 ft.

SCURRY COUNTY—H. H. Coffield & W. S. Guthrie, Inc.'s, A. D. Dodson 1, Sec. 177, Blk. 97, H&TC Ry. sur, dr 2215 ft. Paul C. Teas et al's B. H. Chapman 1, top salt 675 ft, so 1700-34 ft, testing.

SUTTON COUNTY—Paul C. Teas et al's C. E. Mower 1, Sec. 39, Blk. 5, TW&NG Ry. sur, lcn.

STONEWALL COUNTY—Merry Bros. & Perini, Inc.-Humble's C. L. Williams 1, Sec. 6, Blk. "C", AB&C sur, sd 900 ft.

TAYLOR COUNTY—H. Crissman et al's Abilene fee 1, dr 820 ft. J. B. Dunigan & Bros.' A. W. Ely 1, J. W. M. Page sur 123, sp and sd.

UPTON COUNTY—Broderick & Calvert, Inc.'s, Homer (La.) Nat'l Bank 1, Sec. 22, Blk. 42, T-4-S, ur 1100 ft. Gulf Prod. Co.'s J. T. McElroy 103, Sec. 197, Blk. "F", Ordovician test, elev 2625 ft, top lime 2620 ft, top Ordovician lime section 10,167 ft, cem 7⅝ csg 10,301 ft, dr plugs, td 10,630 ft.

WARD COUNTY—Byrd-Frost, Inc., et al's McGregor 1, lcn. H. R. Randall-L. G. Bradstreet & Bert Fields' L. W. Sheppard-Monroe 1, Sec. 77, Blk. 34, H&TC Ry. sur, elev 2604 ft, top salt 1620 ft, dr lime 2555 ft.

WINKLER COUNTY—D. C. Evans et al (was Liner Drlg. Co.-Wilson et al's Seth Campbell 1, Sec. 2, Blk. B-5, P. S. L. sur, elev 2884 ft, sd 4639 ft. R. S. Mathews et al's R. M. Evans 1, Sec. 46, Blk. 73, PSL sur, sd 110 ft. Sayre Oil Co.'s J. F. Howe 1, Sec. 12, Blk. 26, PSL sur, elev 2866 ft, top lime 2605 ft, fsh tools, est 6,000,000 ft gas at 2608-2635 ft.

SOUTH TEXAS

BANDERA COUNTY—A. P. Crane & Co.'s Watson 1, dr 1338 ft, sand. Peerless Oil & Gas Co.'s R. G. Garrison 1, Sec. 506, GC&SF sur, sd 496 ft for water.

BASTROP COUNTY—Champion Oil Co.'s Chas. E. Anderson 1, J. A. Navarro sur, dr 500 ft. Joe Mills et al's Litton 1, J. A. Navarro sur, td 1630 ft, dr plugs, clean hole. Ogden & Reed's C. L. Riddle 6, J. Gray sur, td 2296 ft, put on pump.

BEE COUNTY—Caesar Oil Co.'s Pullin Estate 1, ne cor tract, F. Lewis sur, snd 3031-35 ft, show oil and gas, coring. Falvey et al's Gardner 1, F. Lewis sur, sand 3008-15 ft, dry gas, sand 3053-64 ft, test sw, o and g, prep to set csg. R. H. Feltner's Albert Theis 1, C. Revis sur, dr 3820 ft. Howeth & Swiger's Marie Schramm Estate 1, Hugh O'Brien sur, sand 4980-86 ft, dst nine fourbles sw, little gas, drill ahead. Edwin M. Jones' Robinson 1, Sec. 5, Uranga Grant, dk. Taylor & Falvey's Baptist Church 1, F. Lewis sur, dk. Walton & Heard's Rapp 1, Sec. 5, Uranga Grant, dr 2675 ft. R. J. Worthington et al's Rutledge 1, B. Q. Hadley sur, dr below sur csg.

BEXAR COUNTY — Brigg & McPhee's Florence Lamb 1, Sec. 4, M. de Luna sur, sd 825 ft for repairs; Randolph Carter 1, M. de Luna sur, ru. J. G. Boles' T. Dillon 1, M. de Luna Grant, dr 1365 ft. F. T. Chew's Ogden & Brooks 1, Mission Irrigated Farms, td 250 ft, move on rotary. F. & H. Oil Co.'s Hendrickson 1, County Blk. 4191, td 1050 ft, to pull csg and dd with rotary. F. W. Noble's DeVilbliss 1, Martinez Sur. No. 36, dr 615 ft. Texas Petroleum Co.'s E. B. Carruth 1, F. Rolen sur No. 48, td 1183 ft, bail; Carruth 2, same sur, dr 640 ft.

BROOKS COUNTY—Cole Petroleum Co. & Locke Purnell's G. D. Ulrich 1, 785 ft el and 1323 ft sl of CCSD&RGNG Ry. Sur. No. 7, ru. Florence East's G. Madrigal 1, R. Garcia Salinas Grant, Blk. B, dr below 600 ft, last rept.

CALDWELL COUNTY—Cargill's W. Damerau 2, D. Cooper sur, sd 2277 ft. F. P. Hyne's J. M. Trammell 1, 470 ft sel and nel of tr, Esther Berry sur, lcn changed. Kurz Oil Co.'s C. Kurz ranch 1, Klecamp sur, dr 1400 ft. Monte Vista Oil Corp.'s W. I. Pope 1, McCarley sur, dr 1058 ft. M. C. Moore's Lackey 1, S. Damon sur, sd 1515 ft. Newton Oil Co.'s A. O. Mebane 1, F. Berry Sur. No. 12, cleaned out and sd 1973 ft.

CALHOUN COUNTY—Continental Oil Co.'s American National Realty Co. 1, Sec. 6, Blk. C, ds stuck 5870 ft. Dyck Oil Co. & Mills Bennett Oil Corp.'s E. R. Adam 1, V. Garcia sur, sp.

DUVAL COUNTY — Bridwell Oil Co.'s Schoolfield & O'Byrne 1, Blk 13, Sec. 78, sand 2379-84 ft, sand 2386-92 ft, 7 in cas set 2375 ft, td 2392 ft, test sw, sd. Continental Oil Co.'s R. Driscoll Estate 2-A, Sec. 448, sand 3834-43 ft, dst 22 fourbles sw and little gas, dd. Tom Graham & Texon Royalty Co.'s G. B. Parr 1, J. Poitevent Sur. No. 185, td 3624 ft, test dry, core deeper. Frank Gravis et al's Hubbard 1, Sec. 83, coring 1760 ft. Harrison Oil Co.'s Serna 2, BS&F Sur. No. 523, ru. W. W. Holland's Wood-Welder 1, Sec. 211, td 300 ft, wait on water. Magnolia Petroleum Co.'s Duval Ranch 1, Sec. 58, dr 4870 ft. W. C. McBride, Inc.'s E. R. Hagist 1, Sec. 1, coring below 2000 ft. O'Byrne and Jennings' Juan Benavides 1, Sec. 355, dr 1675 ft. Sun Oil Co.'s Moreno 1, Sec. 540, dr 6075 ft.

EDWARDS COUNTY — Wil Ohlhausen's Turney A1, CCSD&RGNG Ry. sur, Blk NW, dr 215 ft. H. H. Sides' Turney 1, CCSD&RGNG Ry. sur, Sec. 164, dr 930 ft, shale.

FRIO COUNTY — Amerada Petroleum Corp.'s Halff & Oppenheimer 2, J. H. Gibson Sur. No. 16, dr 6765 ft.

GILLESPIE COUNTY — Ed L. Nixon's Lindig 3, J. Guerra Sur. No. 41, dr 335 ft, lime.

GOLIAD COUNTY — Diamond Half Oil Co.'s Runge National Bank 1, G. B. Meyers sur, td 3745 ft, to pb sdtr and recore sand 3737-45 ft. Kemp Oil Co.'s Weldon & Lackey 1, J. Gomez sur, ru. Oceanic Petroleum Co.'s Fromme 1, P. D. Dexter sur, td 2685 ft, old well, ru to dd, was started by Hoffman et al.

GONZALES COUNTY—H. H. Weinert's August Kallies 1, I. Nash sur, lcn.

GUADALUPE COUNTY — Diamond Half Oil Co.'s A. J. Ball 1, L. H. Peters sur, sd 2004 ft, top Austin chalk. Holifield et al's Schwarzloss 1, 200 ft nel and 900 ft nwl of 99.6 acre tract, Miller sur, lcn. Texio Oil Co. and J. Elmer Thomas'Maurerman 1, Jose de la Baume Grant, sp and sd to dr water well.

HIDALGO COUNTY — Davis and Harrison's Mrs. L. George 1, Tract 13, Por. 41 top sand 4160 ft, prep for dst. Union Sulphur Co.'s American Rio Grande Land and Irrigation Co. 2, North Capisallo District, sp. Woods et al's J. Lawrence 1, Tract 274, Por. 39, prep to re-dr 2068 ft.

JACKSON COUNTY — Phillips Petroleum Co.'s Drummond 1, Musquiz sur, sand 5686-5702 ft, show saturation, prep dst; State Realty and Investment Co. 1, set 1151 ft sur csg, wocs; Simon & Seidel 1, Musquiz grant, dr 5890 ft. Turman Oil Co.'s T. H. Miller 1, Musquiz sur, wait on rig.

JIM HOGG COUNTY—Atkins & O'Neil's W. W. Jones 1, Share 27, Blk. 81, Holbein sub, Diego Hinojosa Grant, dr 3880 ft. Sun Oil Co.'s M. Guerra and Son 2-E, Las Cuevitas Grant, Share 14-A, dr 2310 ft; A. Martinez Est. 1, Las Animas Grant, dr 1700 ft.

KARNES COUNTY—Harrison & Abercrombie's Schaeffer 1, A. W. Belvin sur, sd 1135 ft, for repairs to boiler. R. E. Cezeaux's T. Campbell 1, J. R. Backer sur, sp and sd. Bryce McCandeless' First National Bank of Beeville 1, G. B. Meyers sur, dk.

KENDALL COUNTY — Walter Bradley's Willie Werner 2, J. F. Torrey sur, sd 695 ft.

KERR COUNTY—Edmiston and Walker's Whitworth 1, Sec. 1439, dr 715 ft. J. F. Morrisey Co., Inc.'s, F. A. Karger 1, GS&F Sur. No. 1, dr 293 ft. G. F. Schreiner's Jeff Love 3, Sec. 1594, fsh 1670 ft.

KLEBERG COUNTY—J. S. Brown et al's A. Dietz 1, Tract 7, Sec. 56, dr 3100 ft, last rept.

LA SALLE COUNTY—Dupree Fountain's R. J. Kroschewsky 1, A. G. Starty sur, dk.

LEE COUNTY—James E. Pederson's C. A. Turner 1, David Hudson sur, dr 5620 ft.

LIVE OAK COUNTY—Lion Oil Refining Co.'s McNeill 1, James Curry sur, dr 3552 ft. Marine Oil Co.'s C. A. Boothe 1, ru. Unit Oil Co.'s A. Terrell 1, C. Scanlon sur, sd 1503 ft, may pb and comp in upper gas sand.

MAVERICK COUNTY — Strohman and Wright's Debonar 2, bailed little oil 854 ft, sd.

McMULLEN COUNTY—Choate & Noble's Miles 1, Charles Stephanes sur, lcn. C. C. Shumway, Inc.'s Shiner Ranch 7, Sec. 62, dr 1000 ft.

MEDINA COUNTY—Scoggins and Sanders' L. W. Burell 1, M. E. Gage sur, dr 1505 ft.

NUECES COUNTY — Midland Oil Co.'s Noakes 1, G. Farias sur, sd 6009 ft. Nutex Oil Co.'s King 1, Sec. 24, Richard King Farm Lots, td 6021 ft, pb 5455 ft, wocs. Stanolind Oil & Gas Co.'s Stratton 2, Sec. 13, Abajo sur, r 5212 ft. Texas Seaboard Oil Co.'s Jurica 1, Robertson Sur. No. 32, sd 3451 ft, prep to re-dr.

REAL COUNTY—M. J. Heartwell's M. S.

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Perry 1, Sec. 175, AB&M sur, td 2838 ft, change to heavy standard rig.

REFUGIO COUNTY — Holland Oil Co.'s Peck 1, Sec. 24, Esteban Lopez sur, td 5348 ft in sdtr hole, trying to run csg. Humble Oil & Refining Co.'s Fannie Heard 4, M. J. Ximines sur, td 5943 ft, csg set 5936 ft, dr plugs. G. Jeffrey's J. F. Power 1, Garza and Vidauri sur, prep to re-dr 4523 ft. Quintana Petroleum Co.'s Tom O'Connor 2-A, Block 4, A. Swisher sur, sp. United Prod. Co.'s W. J. Fox et al 15, Hews and Brown sur, td 5831 ft in sdtr hole, wocs.

SAN PATRICIO COUNTY—Atkins, O'Neil and Continental Oil Co.'s E. Welder 1-A, Block 2, V. T. Villareal sur, dr 5680 ft; E. Welder 2, Juan Hart sur, flowed oil, gas and sw 5383 ft, sd for orders. Beasley & Maxwell's Saddler 1, Sec. 32, Blk. 1, T. Perez sur, re-dr 5056 ft. Diamond Half Oil Co.'s Ragsdale 1, George A. Paul Sur. No. 58, ds twist off 5518 ft. Heep Oil Corp.'s R. H. Welder 3, A. V. Loupy sur, dr 4660 ft.Marland Oil Co. of Texas's Mrs. Annie Micaulastic 1, Benjamin Dale sur, dr 2150 ft. Petrol Corp.'s Welder 1, de la Garza sur, td 6000 ft, ran formation test, show sand 5405-35 ft, to pb and sdtr and re-core sand. Plymouth Oil Co.'s Welder 2-A, J. & F. Portillo sur, td 5431 ft, in sdtr hole, dr out plugs.

STARR COUNTY—R. S. Bolling's M. M. Garcia 1, Sec. 918, sd 2507 ft. Circle W. Oil Co.'s Block Bros. 1, Block 13, dr 3545 ft. Jim Cloud, Inc.'s J. Rodriguez 1, Por. 88, Share 35, sd 160 ft. Goodwin and Yantis' Kelsey Bass 6, Sec. 4, Por. 86-87, top gas sand 660 ft, prep to complete. Smith-Tex Oil Co.'s Starr County Cattle Co. 1, Blk. 24, Por 89, sd 3610 ft; Starr County Cattle Co. 2, Blk. 37, Por. 89, dr 1450 ft. E. L. Younkins' Kelsey Bass 1, Blk. 19, Por. 87, dr 1460 ft.

UVALDE COUNTY—Humble Oil & Ref. Co.'s R. L. Anderson 1, J. J. Guerra sur, td 2663 ft, pb and set whipstock 1713 ft, now dr 1375 ft in sdtr hole. T. T. Word's K. S. Trueblood 1-A, Elam sur, dr 875 ft; Quinn Braden 1, BS&F Sur No. 185, dr 987 ft.

VICTORIA COUNTY—American Liberty Oil Co.'s Gaugler 1, R. Manchola Gr., lcn. MBG Oil Co.'s Prybil 1, R. Manchola Grant, gas sand 2149 ft, good odor, coring. Feltex Oil Co.'s Herman Dietzel 1, R. Manchola Grant, sand 2926-53 ft, dst sw, dr 3650 ft. Gulf Production Co.'s Keeran 5, M. de Leon sur, dr 4906 ft. Humble Oil & Refining Co.'s Mitchell 2, P. Benavides sur, dr 4490 ft; A. M. McFadden 1, C. O. Edwards sur, dr 4720 ft. Nutex Oil Co.'s Zimmer 1, R. Manchola Grant, td 2209 ft, flowing into pits, cleaning. Plummer et al's Zimmer 1, R. Manchola Grant, sp; A. Terrell 1, R. Machola Grant, td 4437 ft, prep to wo. Texas Co.'s A. M. McFadden 2, C. M. B. Hoyt sur, dr 4206 ft.

WEBB COUNTY—Cole Pet. Co.'s R. Benavides 85, dr out plugs 3422 ft, sand 3400-22 ft. Fidelity Exploration Co.'s R. Saldivar 1, Sec. 657, J. V. Borrego Grant, sdtr 1918 ft. Gholston Drlg. Co. and L. N. Shaw's Yeager 1, Sec. 346, sd 997 ft. Starr State Oil Co.'s Yeager 11, Share 5, Las Animas Grant, td 2524 ft, ru to dd.

WILLACY COUNTY—W. W. Silk's Santa Rosa 1, Lot 16, Blk. 130, dr 725 ft.

WILLIAMSON COUNTY—G. L. Rowsey's Pumphrey 1, W. West sur, dr 400 ft. J. M. Russell's Nelson Estate 1, Justice sur, lcn.

ZAPATA COUNTY—Robert Allison's Mrs. E. T. Garza 1, Sec. 13, Block 5, dr 450 ft. Merle Gunby et al's Alice D. Haynes 1, Blk. 4, A. B. Haynes subdivision of Comitas and Villa Grants, dr 400 ft; Haynes 2, 2440 ft swl and 200 ft sel of Blk. 27, Comitas and Villas Grants, lcn; Haynes 3, 200 ft sel and nel of Blk. 9, Comitas and Villas Grants, lcn. Danvers and Harrison Oil Co.'s Vela 1, 686 ft nel and 300 ft nwl, Blk. 7, Vela subdivision, Por. 29, dr 600 ft. F. D. DeLaney No. 1, center 40-acre tract, Por. 33, dr 1300 ft.

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EAST TEXAS

ANDERSON COUNTY—H. L. Hunt Prod. Co. et al's A. L. Temple-C. A. Miller 1, S. Sanchez Sur. No. 2-10, Long Lake area, elev 311 ft, sd 273 ft. Canadian Production Co.'s Mrs. R. M. Jackson-Amerada 1 (387-ac), Manuel Rionda sur, elev 333 ft, Pecan chalk 2940-3188 ft, top Austin chalk 4080 ft, dr 4340 ft. Sun Oil Co.'s Robt. N. Erskine 1 (5203-ac), Sam C, Box sur, Navarro Crossing, elev 202 ft, Pecan chalk 4142-4390 ft, top Austin chalk 5248 ft, dr chalk 5485 ft. J. A. Johnson et al's Mrs. M. B. Huffman 1 (170-ac), R. S. Patton sur, elev 265 ft, rig.

CASS COUNTY—John R. Hadley et al's Ray Bryan 1 (80-ac), Al. Latimer sur, elev 343 ft, Pecan chalk 2316-2638 ft, sd 2965 ft. Remley-Nelley & R. Kamon Group No. 1's Mrs. I. O. Savage 1 (121-ac), Mary Patterson sur, elev 351 ft, Pecan chalk 2030-2488 ft, sd 4016 ft. United Production Corp.'s T. J. Walton 1, J. Coleman sur, Pecan chalk 2079-2421 ft, top anhydrite 4921 ft, 7-in csg 5505 ft, sd woc, td 5508 ft. H. F. Wilcox et al's S. A. Orr 1 (316-ac), G. W. Morris sur, elev 381 ft, sd 3887 ft.

CHEROKEE COUNTY—Walter L. Goldston et al's Southern Pine Lumber Co. 1 (80-ac), N. Newton sur, sp. H. L. Hunt Prod. Co.'s T. R. Black 1 (50-ac), D. W. McNabb sur, Rusk Pool, lcn. Leon English & H. C. Milhoan Drlg. Co.'s O. R. Perkins 1 (80-ac), J. Montez sur, rig. K. Hughes-Ed. Zilkey & McCullough's Jess Bradford 1, (50-ac), J. Armendaris sur, sd 3930 ft. T. J. Wood et al's New Birmingham Dev. Co. 2 (161-ac), Levi Jordan sur, elev 440 ft, Pecan chalk 3998-4442 ft, top Austin chalk 4898 ft, cor 5140 ft. Jacksonville O&G Co.'s H. D.Henderson 1 (40-ac), J. Pineda sur, elev 409 ft, dk. Arch Rowan-Nichols & Simms Oil Co.'s C. V. Gilbreath 1 (60-ac), H. M. Brewer sur, Reklaw area, lcn. South Gulf Oil Corp.'s Joe Bailey-Hagelstine 1 (80-ac), L. Rhodes sur A-724, elev 386 ft, top Pecan chalk 3125 ft, cor 3600 ft. Smith & McRae's John M. Tipps 1 (130-ac), B. W. Heath sur, sp and sd.

FRANKLIN COUNTY—Humble O&R Co.-Ed. B. Hopkins-Ed. DeGolyer et al's D. David-M. & P. Bank 1 (200-ac), John Askey sur, elev 365 ft, Pecan chalk 1225-1325 ft, top Woodbine section 3060 ft, sd 3107 ft for drill stem test.

FREESTONE COUNTY—Clyde W. Creighton et al's W. A. Holley 1 (80-ac), AB&M sur, elev 399 ft,top Woodbine section 5717 ft, dr 5735 ft. Walter M. Buress et al's J. B. H. Orand 1 (50-ac), W. M. C. Jones sur, 1¼ mi n Fairfield, lcn. American-Liberty Oil Co. et al's Trinity Farm Securities Co. 1 (80-ac), elev 255 ft, Pecan chalk 2200-2400 ft, testing 4033 ft, probably ws. Walter L. Goldston et al's E. M. & C. H. Watson 1, R. D. Price sur, lcn. Hunter-Rowe & Trinity Farm Securities Co.'s Trinity Farm 1 (80-ac), R. M. Williamson sur, sw of Cayuga, elev 253 ft, Pecan chalk 2195-2331 ft, Austin chalk 3228-3575 ft, top Woodbine 3888 ft, dr in ws 4052 ft. J. E. Milburn & J. B. Patty's S. E. McAshan 1 (40-ac), S. G. Diaz sur, Blk. 178, sp and sd. Trinity State Oil Co.'s Trinity River 1, sw of Cayuga, lcn.

HENDERSON COUNTY—Great State Oil Corp. (Dick Andrade, III), R. Sid Ansley 1, N. B. Thompson sur, dr 1310 ft. Crosby & Culp's M. T. Dodd 1, Geo. Aldrich sur, 4 mi e Malakoff rig.

HOPKINS COUNTY—D. A. Hale et al's L. M. Hall 1 (70-ac), A. Caro sur A-143, elev 506 ft, sd 640 ft.

HOUSTON COUNTY—Boone et al's Trinity State Bank 1 (142-ac), Chas. McEllis sur, dr 630 ft.

HUNT COUNTY—G. S. & S. Oil Co.'s Oscar Popper 1, Jas. Moore sur, 544, top Gober chalk 900 ft, sd 1465 ft. L. G. Priest et al's Barnett 1 (212-ac), J. C. Hamer sur A-417, rig.

LEON COUNTY — Killough & Tucker et al's G. B. Young 1 (100-ac), Jas. M. Boone sur, dr 2965 ft.

LIMESTONE COUNTY—Peyton Bros. et al's Jake Steubenrauch 1, Trinity sand test, Mexia field, 12½-in cas 180 ft, dr 2870 ft. J. E. Schultz et al's R. Ward 1 (23-ac), H. York sur, dk. Ernest Thompson (was Curtis & Winans') E. Daniel Johnson 1, P. Varela sur, fsh 2960 ft.

MORRIS COUNTY—H. N. H. Drlg. Co.'s

E. Hall 1 (177-ac), Levi Jordan sur, top Pecan chalk 2360 ft, sd 3690 ft. C. L. Simpson et al's P. M. Staggers 1, J. D. Nelson sur, Pecan chalk 2520-2955 ft, dr 3725 ft.

NAVARRO COUNTY — Bennett Bros. et al's T. E. Stewart 1 (83-ac), W. R. Bowen sur, woc 1185 ft W. J. Keeling et al's J. F. Rushing 1 (84-ac), H. Ford sur, dr 1900 ft. L. N. McCulloch et al's C. D. & J. L. Berry 1 (35-ac), W. W. Moss sur, sd 625 ft. R. L. Wheelock-J. L. Collins-Magnolia & Humble's I. N. Cerf 1 (147-ac), Jas. Smith sur, Trinity sand test on w edge Corsicana-Powell field, elev 435 ft, Austin chalk 2860-3372 ft, top Woodbine sand 3827 ft, top Georgetown lime 4307 ft, dr 5065 ft.

RED RIVER COUNTY—Speary & Cornell's E. H. Thompson 1 (38-ac), J. Northcross sur, dr 720 ft.

RAINS COUNTY—J. K. Wadley & J. W. Halsell's T. F. Jones 1 (22-ac), BBB&C sur, elev 425 ft, Pecan chalk 2503-2700 ft, top Austin chalk 3970 ft, dr 4640 ft.

RUSK COUNTY—Geo. F. Hudson et al's J. H. Phillips 1-A, N. Villareal sur, top Pecan chalk 2412 ft, tested dry, sd 3673 ft. G. A. Hathaway et al's Gray 1, Jas. McLain sur, elev 315 ft, top Georgetown lime 3140 ft, sd 4460 ft. Stewart & Egan's Hall Wood 1 (847-ac), Blk. 12, Jose I. Sanchez sur, lcn.

UPSHUR COUNTY—G. H. O. Oil Co.'s J. M. Floyd 1 (177-ac), Robt. Raiford sur, dr 3310 ft. Lanier & Moore's Mrs. M. Vaughn 2, P. B. Standifer sur, sd 1042 ft. Joe Papadakis et al's L. V. Towery 2, Wilson L. Parmer sur, dr 3060 ft.

VAN ZANDT COUNTY—B. F. Blackman et al's C. E. Dorrill 1 (35-ac), C. E. Rivers sur, sd 1340 ft. W. E. Brown-Warren et al's Edgewood Nat'l Bank 1 (31-ac), M. B. Lout sur, sp and sd. H. L. Edwards et al's A. T. Bass 1 (16-ac), Wm. Hart sur, elev 480 ft, top Woodbine section 4210 ft, fsh dp, td 4267 ft. Martin & Evans' L. M. Palmer 1 (69-ac), Blk. 13, NCSL sur, co 1288 ft. S. E. Miller et al's J. M. Palmer 1 (39.1-ac), NCSL sur, Blk. 14, sd 225 ft. Peden-Olson Oil Co.'s W. S. Brannon 3 (45-ac), co 1227 ft; Palmer 1, sd 1270 ft. Skinner et al's D. F. Cade 1 (28-ac), NCSL sur, sd 1265 ft. Van Zandt Synd.'s Dr. C. S. Coker 1 (60-ac), Wm. Daniel sur, sd 1208 ft. John D. Wrather et al's G. W. Carter 2 (160-ac), Wm. Daniel sur, Pecan chalk 1635-1705 ft, Austin chalk 2630-2810 ft, top Woodbine sand 2992-3032 ft, testing.

WOOD COUNTY—Alex M. Snyder et al's J. T. Holmes 1 (122-ac), A. N. McKnight sur A-399, top Pecan chalk 3400 ft, dr chalk 3710 ft.

ABBREVIATIONS

The following abbreviations, signs, etc., are used in completion and wildcat reports in THE OIL WEEKLY.

* —*dry hole, abandoned well.*	owdd —*old well drilling deeper.*
‡ —*salt water (completions).*	owpb —*old well plugging back.*
† —*junked and abandoned.*	pb —*plugged back or plugging back.*
¶ —*million feet of gas.*	r —*reaming.*
abd —*abandoned.*	rog —*rig on the ground.*
bbls —*barrels.*	rur —*rigging up rotary tools.*
br —*building rig.*	rust —*rigging up standard tools.*
b.s. —*basic sediment.*	sd —*shut down.*
csg —*casing.*	sdtr —*sidetracking.*
co —*cleaning out.*	sg —*show gas.*
dd —*drilling deeper.*	si —*shut in.*
dk —*derrick.*	so —*show oil.*
dr —*drilling.*	so & g —*show oil and gas.*
fsg —*fishing.*	spd —*spudding.*
ft —*feet.*	sr —*straight reaming.*
hfw —*hole full of water.*	sw —*salt water.*
in —*inches.*	td —*total depth.*
lcn —*location.*	ur —*underreaming.*
m —*milling.*	wih —*water in the hole.*
mim —*moving in materials. tools.*	wo —*workover.*
mit —*moving in*	wocs —*waiting on cement to set.*
mot —*milling on tools.*	wosr —*waiting on standard rig.*
n, s, e, w, —*north, south, east, west.*	
oih —*oil in hole.*	

TEXAS GULF COAST

AUSTIN COUNTY—I. T. I. O. & Johnson Bros.' August Wangler 1, Kuykendall sur, Abst. 243, ru and drilling water well.

BRAZORIA COUNTY — Amerada Pet. Corp.'s Houston Farms Dev. Co. 1, L. G. Bachelder sur, dr shale 4415 feet. Gillock Pet. Corp.'s Truska 1, H&TC No. 7 sur, dr water well. Jack Clark, Tr.'s Speer 1, J. F. Pinckney sur, dr sticky shale 4600 ft. Holt et al's Griffith 1, J. B. Bailey sur, sd 4173 ft. W. H. McCarthy's Natl Life Ins. Co. 1, H. Austin No. 4, A-12 sur, lcn. Harrison & Abercrombie's Bernard River Land Co. 1, in Old Ocean area and 2 mi nw of Sweeney, ru.

BURLESON COUNTY — Bear Pond Oil Co.'s Coulter 1, A. Kennon sur, woc 500 ft.

CHAMBERS COUNTY—Turnbull & Irwin's Sudindrof 1, H&TC No. 7 sur, dr shale 4331 ft, 10-in csg set 1187 ft.

FT. BEND COUNTY—Gem Oil Co.'s Farmer 1, Robt. Hodge sur, D&A 6025 ft. W. H. Scheper Bartosh 1, H&TC No. 52 sur, sd 300 ft. Vico Oil Co.'s Darst 1, E. Powell sur, lcn. Wilkes et al's Norris 1, Geo. Teel sur, moving in boilers.

GALVESTON COUNTY — C&RG Drilling Co.'s Spoor 1, W. K. Wilson sur, temp abnd, 6577 ft. Humble O&R Co.'s Stewart 1, J. Sellers sur, dr clay, 7824 ft.

GRIMES COUNTY—Marshall et al's Dodd 1, Timonthy Jones sur, laying water lines. W. D. Roan et al's Kelly 1, U. Sanders sur, dr shale 1400 ft. J. Woodward's Hamilton 1, O. Hill sur, dr grey water sand, 3060 ft.

HARDIN COUNTY—Wilcox Oil & Gas Co.'s Sternberg 1, G. Dorsey sur, dr 5590 ft. Alpha Pet. Corp.'s Steinberger 1, H. Williams sur, try to shut off salt water, td 7012 ft.

HARRIS COUNTY—General Crude Oil Co.'s Rorick est 1, J. C. Ogburn sur, dr shale 5003 ft. Imperior Oil Co.'s Brooks 1, Vince sur, dr water well, 344 ft. Loring Oil & Gas Co.'s Westmoreland 1, J. M. Swisher sur, preparing to start up. Southland Oil Co.'s Galney 1, H&TC, Blk 1, Sec 4, sur, dr shale, 4735 ft. Foster et al's Johnson 1, C. C. & S. F. Sur, dr water well. Texas-New York Dev. Co.'s Ralston 1, J. W. Moody sur, dr shale 1535 ft, 10-in at 1259 ft.

JEFFERSON COUNTY—Sun Oil Co.'s Long 1, John Blair sur, dr shale, 7751 ft.

LIBERTY COUNTY — Gulf Prod. Co.'s Kirby C-5, J. Pleasant sur, dr 300 ft. Liberty Ind. Oil Co.'s Neal 1, S. Strong sur, dr shale, 2400 ft. Magnolia Pet. Co.'s Stewart 1, A. Cherry Lge, dk.

MONTGOMERY COUNTY—Baker et al's Benker 1, L. H. M. Washington sur, preparing to test at 4948 ft. Humble Oil & Refining Co.'s A. M. Platte 1, W. Baker sur, dr shale, 6019 ft. Sayre Oil Co.'s Delta Land Co. 1, T. Truitt sur, dr shale, 1572 ft. Shell Pet. Corp.'s Creighton 1, J. Pevehouse sur, dr shale, 1734 ft.

TYLER COUNTY—Boone, Wallace and Lane's Crews 1, S. L. Graham sur, dr shale, 2586 ft.

WHARTON COUNTY—Texas Gulf Prod. Co.'s Kresta 1, E. E. T. R. R. No. 151 sur, dr shale, 1480 ft.

LOUISIANA GULF COAST

ACADIA PARISH — Woodley Pet. Co.'s Daigle 1, Sec. 24-7s-1e, dr shale 7035 ft.

BEAUREGARD PARISH—Federal Pet. Co.'s Lutcher Moore 1, Sec. 4-7s-12w, dr shale 8560 ft; same operator's B-1, Sec. 26-6s-13w, dr gumbo 3500 ft.

CALCASIEU PARISH — Union Sulphur Co.'s Barbee St. 2, Sec. 11-9s-8w, dr water sand 7004 ft. Fred Oil Co.'s Faist 1, Sec. 26-8s-10w, sd, 3005 ft.

CAMERON PARISH—The Texas Co.'s Calcasieu Lake 1, Sec. 1-14s-9w, sd 6568 ft.

IBERIA PARISH—Grosse Tete Dev. Co.'s Augelloz 1, Sec. 54-12s-7e, set 8-in cas 2270 ft.

LA FOURCHE PARISH—Barnsdall Oil Co.'s Herang Plantation 3, Sec. 97-17s-20e, woc 1250 ft. R. L. Gay, Tr.'s Godchaux 1, Twp-15s-19e, sd 5618 ft.

PLAQUEMINES PARISH—E. A. Howe's Buras Levee 1, Sec. 26-21s-30e, dr shale 1386 ft.

RAPIDES PARISH—Ben Banner's Bentley Lumber Co. 1, Sec. 11-4n-5w, sd 3021 ft.

ST. BERNARD PARISH—John Danciger's Battle 1, Sec. 135-14s-14e, woc 42 ft. Joseph

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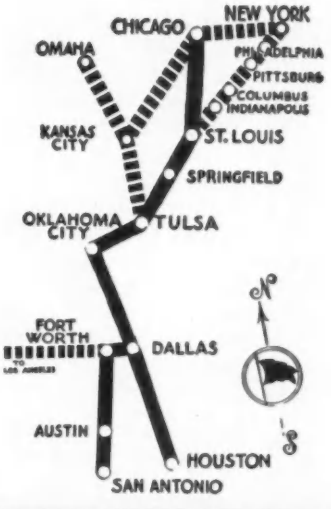

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ST. MARTIN PARISH—The Texas Co.'s St. Martin Ld. Co. 1, Sec. 17-8s-7e, dr shale 7800 ft.

ST. MARYS PARISH—Edwards Drilling Co.'s Chetemaches 1, Sec. 34-13s-9e, sd 6501 ft.

VERMILION PARISH—J. C. & Lon Moore's Ulysse B. Broussard 1, Sec. 32-11s-3e, dr sand 2435 ft.

NORTH LOUISIANA

BIENVILLE PARISH — Saline Drilling Co.'s Pardee 1, ne ne 27-14n-6w, elev 162.4 ft, 10-in csg 142 ft.

BOSSIER PARISH — F. M. Crow et al's Biedenharn 1, se se 23-21n-14w, sd 1045 ft, sg. Howard & Bird's Sam Gold 1, nw ne 36-20n-13w, sd 1125 ft. Producers O&G Co.'s W. H. Werner 1, se se 7-17n-11w, td 3984 ft, rebuilding dk and rur.

CADDO PARISH—W. T. Bell et al's Bostick 1, sw sw 12-22n-16w, sd 2535 ft.

CALDWELL PARISH—Davis et al's La. Central Lbr. Co. 1, 14-11n-3e, sd 1850 ft. Terrell & Price's La. Central Lbr. Co. 1, nw ne 18-11n-3e, elev 206 ft, dr 3035 ft.

DE SOTO PARISH—Hester et al's Alson 1, ne sw 11-11n-16w, rur. Jack Clark et al's Moore 1, ne nw 1-13n-15w, dr 1330 ft. E. T. Oakes Johnson 1, ne nw 30-13-15, coring hard lime 5390 ft. George LeGrand's Mrs. E. Vance 1, swc se 34-12-16, rur.

NATCHITOCHES PARISH—Clyde Creighton's Friedman Estate 1, swc of Friedman Estate in 52-7-6, owdd. Matthew Forman et al's Poissoit 1, 9-10n-8w, rog. Roy Raines et al's Fee 1, sw sw 28-9n-10w, sd 2255 ft for csg.

RAPIDES PARISH—C. D. Loe, Tr.'s Bently Lbr. Co. 1, 20-5n-1w, rur.

RED RIVER PARISH—Tooke et al's J. Ober 1, 5-14n-10w, td 2910 ft. W. K. Williams' De Moss 1, ne ne 33-13-11, sd 2468 ft, tested, flowing sw and sg, pb into csg.

SABINE PARISH—Geo. L. Pace's DeSoto Corpn. 2, ne sw 27-10-13, td 3230 ft, r to bottom.

ARKANSAS

CALHOUN COUNTY—R. J. McMurry, et al's Calion Lumber Co. 1, swc sw ne 3-16-14, rur.

FULTON COUNTY—Salem Dev. Co.'s I. S. Stephens 1, sw se 31-20-7w, sd 800 ft.

HEMPSTEAD COUNTY—Arkansas Drilling Co.'s Jones 1, ne se 11-14-24, set 10-in csg 160 ft. Dr. E. L. Austin's J. W. McWilliams 1, nw sw 19-13-23, sd 700 ft. F. W. Martin & Co.'s Lafferty 1, se nw 17-14-24, rur.

LAFAYETTE COUNTY—A. L. Erwin et al's Bodcaw 1, ne ne 19-16-23, rur. Earl F. Fox's Coleman Bros. 1, nw ne 36-16-25, td 2258 ft, repairing rig. W. H. Harvey's A. M. Allen 1, ne sw 18-19-24, rur. Douglas Lawn's Camp 1, sw se 14-15-23, sd 2405 ft.

LEE COUNTY—Ark. La. P. L. Co.'s E. McDonald 1, sw sw 28-1n-4e, sd 3600 ft.

MADISON COUNTY — H. L. Scott's Hughes 1, 14-15-25, sd 650 ft.

MILLER COUNTY — Beverley Oil Co.'s Commercial Nat. Bank 1, ne se 30-17-28, dk. W. F. Lacey's Gibson 1, sw nw 30-19-27, sd 3808 ft.

UNION COUNTY — Alexander-Head Oil Co.'s Union Sawmill Co. 1, sw nw 28-17-13, dr 2590 ft. Mrs. R. K. Jones' J. Davis 1, nw nw 28-16-14, to test 2765 ft.

NEVADA COUNTY—Ira Gee's Scott 1, sw nw 23-10-22, dk.

MISSISSIPPI

CLARKE COUNTY — Clarke County Oil Co.'s S. B. Kirkland 1, 10-2n-10e, cmt 13⅜-in csg 133 ft.

HANCOCK COUNTY — Gulf Refg. Co.'s R. J. Williams 1, ne ne 11-8s-15w, dr 2500 ft.

JONES COUNTY—Snow-Black Pet. Co.'s Watson 2, ne sw 24-7n-13w, sd 2550 ft in sand, waiting orders.

MADISON COUNTY—H. A. Wilson, Tr.'s Cepek 1, sw ne 24-9n-3e, sd 2340 ft.

MONROE COUNTY — Miss. Pub. Serv. Corpn.'s Edwards & Carter 1, ne se 12-13-18, rog. P. J. McAlpine's Chas. Rye 1, se sw 22-15-17, to shoot formation, td 2917 ft.

PEARL RIVER COUNTY—Gulf Refg. Co.'s May L. Williams 1, se ne 35-5n-17w, to dr plug in 6⅝-in csg at 3696 ft, td 3707 ft.

RANKIN COUNTY—Love Pet. Co.'s Pearl River-Interior Lbr. Co. 1, sw sw 15-6n-2e, dr 3500 ft chalk, elev 276 ft.

SIMPSON COUNTY—Berry Corp.'s Berry 2, sw sw 33-2n-4e, cemented 6⅝-in csg 3048 ft.

WARREN COUNTY — Harry W. Elliott's R. L. Parker 1, 14-14n-1e, sd td 3200 ft.

WASHINGTON COUNTY — Perkins & Dees' Lee 1, nw sw 33-15-8w, sd 1200 ft.

ALABAMA

CLARKE COUNTY — Magnolia Pet. Co.'s Scotch Lbr. Co. 1, sw ne 17-10n-3e, dr red shale 5055 ft.

LAMAR COUNTY — De Soto O&G Co.'s Gardner 1, nw nw 22-15-16, r to 4153 ft.

Allis-Chalmers Announces Removal of Chicago Office

Allis-Chalmers Manufacturing Company, Milwaukee, has announced the removal of its Chicago district office to the new Field Building, 135 South LaSalle Street. B. P. Bilsland is manager of the Chicago district.

With this move the company returns to its original Chicago location. The new Field Building stands on the site of the old Home Insurance Building, where the general offices of the company were first located after organization through consolidation in 1901.

Dowell, Incorporated, Opens Wichita Falls Office

The Fort Worth office of Dowell, Incorporated, oil and gas well chemical service, has been moved to 404 Petroleum Building. A branch of this district office has been opened recently at 228 Bob Waggoner Building, Wichita Falls, with W. Ross Keyte in charge as chief treater. R. L. White has been added to the Wichita Falls staff as treating engineer.

Booklets

Linde Air Products Company, New York, has ready for distribution two booklets, one on "Maintenance of Reciprocating Parts," and another on "101 Uses for the Air-Acetylene Flame."

Geological Bulletin

Pennsylvania Geological Survey, Harrisburg, Pennsylvania, has ready for distribution Bulletin M-19, a volume of 94 pages which has been titled "Contributions to the Oil and Gas Geology of Western Pennsylvania." It gives correlations of the principal oil and gas sands, a record of the number of producing wells by counties, average depth, cost and productive acreage, ranges in depth and rock pressure, and production statistics of the district.

The heart of the report is 17 stratigraphic charts, composites of well logs, and one general chart showing the correlation of the oil and gas sands in 16 counties. The report will be mailed upon receipt of $1.25, which should be sent to Bureau of Publications, Department of Property and Supplies.

Compressors

Worthington Pump and Machinery Corporation, Harrison, New Jersey, has issued Bulletin No. L-611-B3, which describes the steam booster compressors manufactured by the company.

New Equipment for the Field

Machinery....Tools....Catalogs....Books

▼ ▼ ▼

Ratchet Threading Machine

THE TOLEDO PIPE THREADING MACHINE COMPANY

The Toledo Pipe Threading Machine Company, Toledo, Ohio, announces that its popular No. 11 ratchet threading tool that formerly had a capacity of one half-inch to 1¼ inches pipe, inclusive, is now offered in an increased capacity of one eighth-inch to 1¼ inches. This small compact ratchet tool has a separate die head and set of dies for each size pipe, and any combination of die heads and dies can be ordered within this range. It is an exceedingly desirable tool for close cornered jobs, as dies are changed instantly and produce smooth perfectly tapered threads.

Toledo Threader

The tool is reasonably priced and is sold by all leading supply houses.

Derrick

MUSKOGEE IRON WORKS

Muskogee Iron Works has placed on the market a new, improved derrick, made in their own plant and sold under their own name.

A number of interesting features are incorporated in the M. I. W. derrick. Erection is facilitated by having less parts and therefore fewer bolts. Among other improvements are two-bolt connections throughout so that there is always a hole for a pin to bring the member in contact while a bolt is being inserted. Any M. I. W. derrick can easily be erected in a day's time. One oil company finds that the crew going to work at 8 o'clock usually has the derrick up by 3 in the afternoon.

Other construction features include: milled joints; Silicon steel legs; gin poles specially locked in place; a specially designed ladder connection which is not dependent on the bolt staying in place, thereby making the ladder absolutely safe at all times.

Muskogee Iron Works has the largest derrick plant in the Southwest and carries in stock around 3000 tons of derrick material. Derricks in standard sizes are shipped the same day orders are received. Speciall derricks can be ready for shipment very quickly.

Main offices of Muskogee Iron Works are at the plant in Muskogee, Oklahoma. Branch sales offices are at 1115 First National Bank Building, Dallas, Texas.

Blowpipe Valve

LINDE AIR PRODUCTS COMPANY

Linde Air Products Company, New York City, is offering a new type of needle valve for use on "Oxweld" blowpipes. The new valve is the ball-seat needle type, and is claimed to be a decided improvement over the old type. It is interchangeable on all blowpipes now in service.

Welding Machine

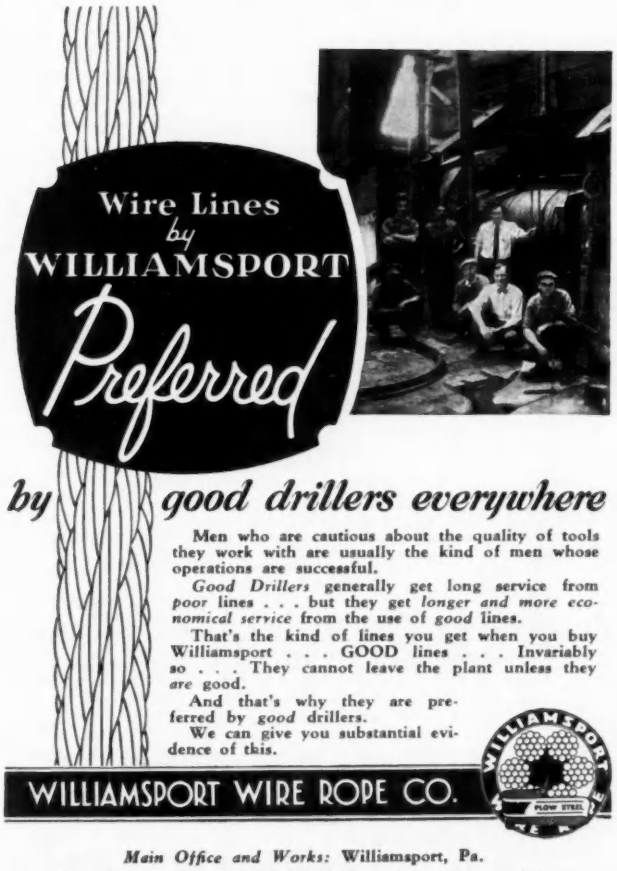
LINCOLN ELECTRIC COMPANY

Lincoln Electric Company, Cleveland, Ohio, has announced a new close coupled gas engine driven "Shield-Arc" welder of 300-ampere, 40-volt capacity. Due to close coupling features, the new unit is much more compact and lighter in weight than previous models.

The generator is mounted on the engine housing with the drive lined up on hardened steel and driven on cushioned rubber. This method of coupling takes care of misalignment and reduces vibration.

Due to reduced vibration, the engine operates at a high efficiency and gasoline consumption is lowered, according to the manufacturer. A special idling device which cuts the engine speed when the arc is broken further assures economical operation of the six-cylinder engine.

The welder is mounted on a rigid steel base with totally enclosed steel side curtains. Where desired the complete unit is mounted on small factory portable steel wheels, or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Men who are cautious about the quality of tools they work with are usually the kind of men whose operations are successful.
Good Drillers generally get long service from poor lines . . . but they get longer and more economical service from the use of good lines.
That's the kind of lines you get when you buy Williamsport . . . GOOD lines . . . Invariably so . . . They cannot leave the plant unless they are good.
And that's why they are preferred by good drillers.
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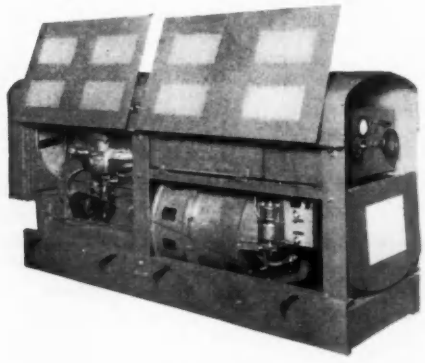
The SURWEL Clinograph

(U. S. Patents 1,124,068, 1,959,141, 1,960,038, and other patents pending.)

large six-inch face steel wheels for outside use, or on two or four wheel pneumatic tired trailers.

A uniform generator current permits use of a higher average current with greatly increased welding speed. The capacity of the new welding machine is 60 percent higher



Lincoln Welding Machine

than its predecessor and it is rated at 40 volts. According to the manufacturer, the "Shield Arc" welder has 10 percent higher efficiency at full loads and still more on overloads, even though it is of much greater capacity.

Other features of the "Shield Arc" welder include dual control of welding heat, sparkless commutation, handy-height controls, and arc welded steel construction.

"Lincontrol," a new remote current control device which enables the operator to adjust the current by tapping the electrode on the work, is supplied as optional equipment. No additional cables or rheostat are carried by the operator.

Reamer, Die Stocks

THE BORDEN COMPANY

The Borden Company, Warren, Ohio, has announced addition of a number of new items to its line of pipe tools. The "Beaver" No. 200 swivel pipe reamer has been perfected, having a range from ⅛-inch to two-inch pipe. The handle and knob are made of malleable iron and are unbreakable, while the reamer head is of heat treated alloy steel, and may be resharpened many times, according to the manufacturer. When finally worn out, the reamer head can be replaced. The simple swivel action makes the tool preferable to the old style ratchet reamer, according to the manufacturer.

The company has also added "Beaver" die stocks Nos. 70 and 72, several improvements having been built into the new numbers. They are especially recommended for brass and copper pipe. This new series incorporates ruggedness, segmental dies, simplicity, a wide range, die throw-out, and adjustability.

Bronze Bars

ALUMINUM INDUSTRIES, INC.

Aluminum Industries, Inc., Cincinnati, Ohio, has announced development of "Permite" leaded phosphor bronze bars, which the manufacturer claims is a forward stride in the production manufacture of special bearings, bushings, fittings and small parts.

These bronze bars are available in standard six-foot lengths in diameters from ⅝-inch to two inches, by 1/16-inch steps. All standard bearing bronze alloys may be supplied. The stock possesses exceptionally free machining qualities, and by using tungsten carbine tools, it has been successfully machined at speeds in excess of 1500 surface feet per minute without a coolant. A tuened finish has been adopted for these bars.

Squeaks *from the* BULL WHEEL

"Do you think there are any canals on Mars?"

"I don't care," replied the New Orleans man, "If there are, their openings were celebrated long ago."

"Have you ever noticed a very odd thing about blunt people?" Freeman asked his friend.

"Can't say that I have," said the latter. "They are certainly rather embarrassing at times."

Freeman nodded pensively.

"Yes; but hasn't it ever struck you that they are the ones who generally come to the point first?"

"Aha," said the chief clerk. "I'm glad to notice that you're arriving punctually now, Mr. Slocombe."

"Yes, sir. I've bought a parrot."

"A parrot? What on earth for? I told you to get an alarm clock."

"Yes; I did. But after a day or two I got used to it and it didn't wake me up. So I got the parrot. And now when I go to bed I fix the alarm clock and put the parrot's cage on top of it. What that bird says when the alarm goes off would wake up anybody."

Traffic Cop—Use your noodle, lady. Use your noodle.

Lady—My goodness; where is it? I've pushed and pulled everything in the car.

Youth (to fair companion): Have you ever tried listening to a play with your eyes shut?

Voice (from row behind) Have you ever tried listening to one with your mouth shut?

Little Johnny, aged seven, had been taken to the zoo to see the animals.

He stood before the leopard's cage for a few minutes staring intently. Then, turning to his mother, he ased:

"Say, Ma, is that the dotted lion that everybody wants Dad to sign on?"

Country road. Youth and maiden in car. Car falters, then stops.

Calloused Youth — Outta gas, by cracky.

Poor, but Honest Girl—Oh, Yeah? (Produces flask from somewhere).

C. Y. (in a highly receptive tone)—Aaah! What's in that flask?

P.B.H.G.—Gasoline.

An expert in aviation was observed studying a bird closely.

"What's up, old top?"

"I think his steering gear infringes on one of my patents."

The young girl came in to kiss her mother good-night. As this function was being performed, the mother agitated her nose in rabbit-like fashion. Then she asked: "Have you been drinking?"

"No."

"Your breath smells of liquor."

"Oh, that's because I just kissed dad good-night."

"What do you mean? Your father doesn't drink."

"But the ice-man does, and he spends a lot of time with the French maid.

Mary had a little swing,
It isn't hard to find,
And everywhere that Mary goes
The swing is just behind.

Two friends met; one was garbed in widow's weeds.

"My dear friend!" said the other, "how I pity you—a widow at 25!"

"Pardon me," retorted the bereaved one, "24!"

Small Boy—Father, what's a committee?

Father—A committee is a body that keeps minutes and wastes hours!

Henpeck (who has just heard his wife scolding the maid)—You and I both seem to be in the same unfortunate position, Mary.

Maid—Not likely. I'm giving her a week's notice tomorrow.

Lady (to tramp): "Did you notice that pile of wood?"

Tramp: "Yes'm, I seen it."

Lady: "You should mind your grammar. You mean you saw it."

Tramp: "No'm. You saw me see it, but you haven't seen me saw it."

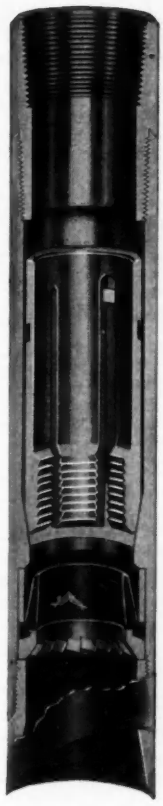
Friend—Why have you given the general such a peculiar pose?

Sculptor—You see, it was started as an equestrian statue, and then the committee found they couldn't afford the horse.

"Lend me five dollars, old man. I promise you, on the word of a gentleman, to pay it back tomorrow."

"Bring the gentleman around and let me see him."

For Successful Fishing *use the* **NEW IMPROVED GRAY SLIP SOCKET**



with . . . **RELEASING SLIPS** . . . **PACK-OFF** . . . and **MILL** for smoothing off fish. In all sizes for rental or sale.

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Run the right tool first as insurance against possible loss of your hole.

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TOOL COMPANY
HOUSTON, TEXAS

FOR SALE
·Equipment·

3-INCH USED LINE PIPE—25,000-ft., good clean, first class quality 3-inch Used Line Pipe ready for immediate delivery from original line location near Wichita Falls, Texas. Offered at special price on location. By placing orders before it is moved into stock a considerable saving can be made. Contact Ralph Hague, Phone 4-8580 Tulsa or Wichita, Kansas Office.

ROTARY DRILLING ENGINE — 12x12-in., Johnson, Gumbo-Buster, Enclosed Type Twin Cylinder Rotary Drilling Engine on Steel Skids. Just came off a job and is in first class operating condition. Priced at $1,500 f.o.b., Oklahoma City, Okla.

SEMI-DIESEL TYPE PUMPING ENGINE—Completely overhauled and renewed 40 h.p., Weber, Semi-Diesel type, Oil Engine complete with straight type clutch and fuel tank. This is a good value for $850 f.o.b., Wichita, Kans.

REVERSIBLE ENGINE CLUTCH — Thoroughly rebuilt Type BG Franklin Reversible Counter Shaft Clutch mounted on steel base. Has 4¼-in. diameter shaft and 29-in. diameter by 17-in. face driving pulley, and extra 48-in. diameter by 20-in. face pulley. This clutch is guaranteed in every respect. In stock at Wichita.

GASOLINE DRILLING ENGINE—140 h.p., 6-cylinder, Climax Gasoline Drilling Engine with Bessemer Clutch, Light Plant, Electric Power, etc. This engine has drilled only one well and is in first class condition ready to go on the job. Priced very low, f.o.b. Pampa, Texas.

BOILERS—PAMPA — Several 60-h.p., 150-lb. WP Donovan Boilers with stacks. Suitable for Cable Tool Drilling in Panhandle and similar territories. One each 115-h.p., 250-lb. WP Donovan and 125-h.p., 250-lb. WP Acme first class boilers suitable for rotary drilling at Pampa. Various other sizes and types of good used boilers in other branch store yards.

LONG DRILL COLLAR—Slightly used 8-in. by 30-foot Bridgeport Forged Steel Normalized Drill Collar with steel thread box. This is a regular type Bridgeport Drill Collar which was traded back to us for another type after having been used a short while. For all practical purposes it is the same as new. Special price of $500 f.o.b., Okla. City.

BUTLER ELEVATOR—Completely overhauled 10-in. Butler Casing Elevator with 2½-in. by 98-in. links, cement bracket and set each of 10, 8¼, 7 O.D., and 5-3/16-in. slips. Complete with slips as listed $625 f.o.b., Houston or with choice of three sets of slips at $550.

KELLY STEM — Good used 6-in. by 38-ft. Grief stem with connections. Houston stock.

HIGH PRESSURE STEAM PUMPS—(2) 10x3x10-in., Gardner-Denver "Line-Type" High Pressure Duplex Steam Pumps. Fluid end operating pressure 1500-lbs. Especially designed for cement or mud pumping service. In stock at Houston.

STEAM DRILLING ENGINE — Completely overhauled 12x12-in. Acme Drilling Engine complete with Outboard bearing. Price $250 f.o.b., Chase, Kans.

(All items priced subject to change without notice and offered subject to prior sale).

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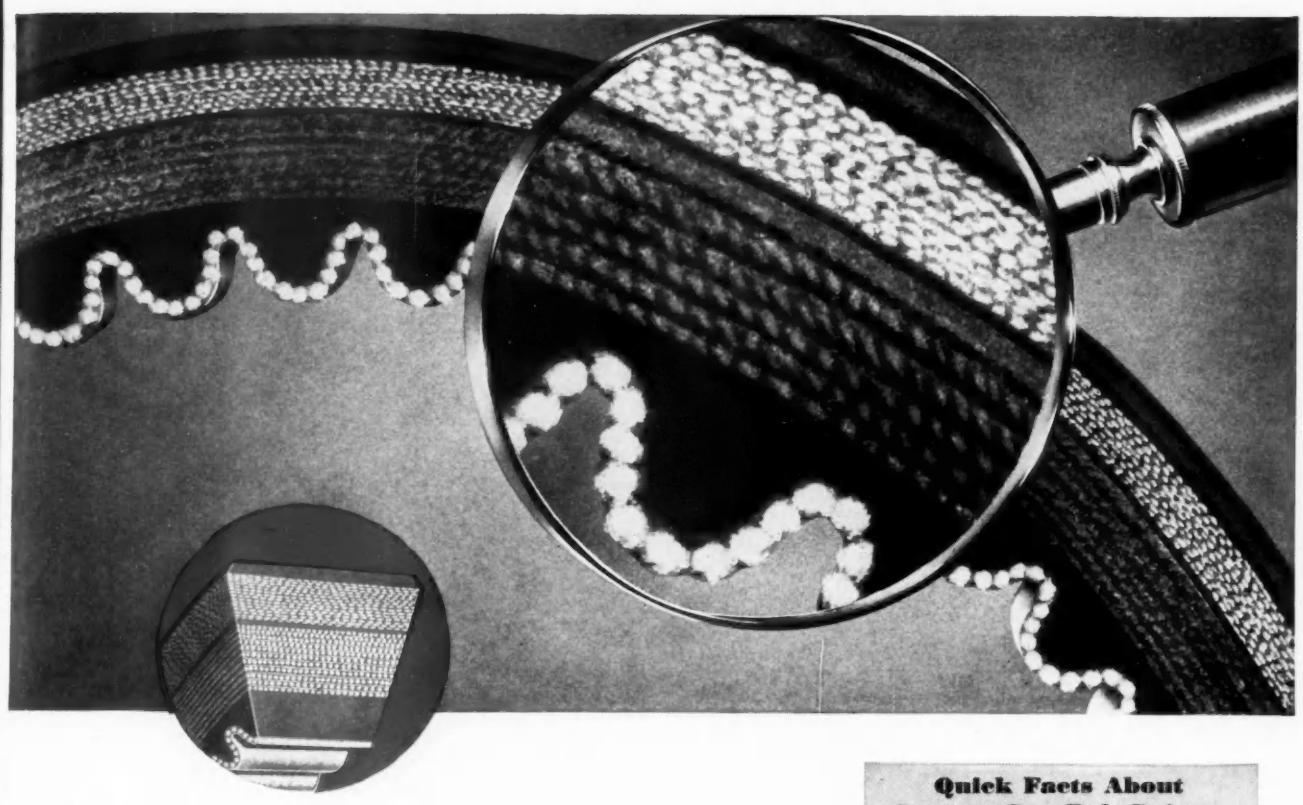
with less tension



Sides *die-cut*—not molded—provide another exclusive and important reason for the proved efficiency of Dayton Cog-Belts

A powerful, leech-like grip—less slipping or sliding even with quick starts and stops—less loss of power—less vibration—

—these are some of the many advantages assured by the *die-cut sides* of Dayton Cog-Belts. The raw edges of the die-cut sides contact the sides of the pulley groove and form the driving surface. There's practically no wear. Nor will they ravel. Nor glaze.

Because of this exclusive construction no other V-Belt provides such unfailing gripping qualities—such a steady, uniform flow of power, regardless of speeds—all with less tension, less wear on the bearings.

And in addition to die-cut sides, Dayton Cog-Belts have many other outstanding features. They're the only belts *built to bend*. Because of their cogged inner surface and laminated construction they have far greater flexibility. Even on the smallest pulleys there's no buckling, no distortion, no "squashing" in the pulley groove—*the only V-Belt that combines maximum flexibility with crosswise rigidity.*

And economical, too—cost less to use. They're pre-stretched, so adjustments are seldom necessary. And their *life* is *twice as long* as ordinary belts.

These are only a few of the reasons for the pronounced trend to Dayton Cog-Belt Drives in the power transmission field. We shall be glad to send you all the facts.

THE DAYTON RUBBER MFG. CO.
DAYTON, OHIO

Factory Distributors in Principal Cities and all Westinghouse Electric and Manufacturing Company Sales Offices

Quick Facts About Dayton Cog-Belt Drives

1. Save floor space.
2. *Built-to-bend*—no distortion—no internal heating.
3. Greater gripping power—no slipping or sliding.
4. Stretch removed—fewer adjustments necessary.
5. No dressing or lubrication.
6. Less tension required—easy on bearings.
7. Longer life—belt replacement costs often cut in half.
8. Quiet—Clean—Rugged.

Complete drives—pulleys and belts—in stock. Fractional to 100 H. P.

DAY-STEEL PULLEYS

Investigate the exceptionally low cost of Dayton Cog-Belts with Day-Steel Pulleys

Built to Bend

Dayton
COG-BELT DRIVES

Also manufacturers of Dayton Fan Belts . . . Dayton Red Tube Radiator Hose . . . and the famous Dayton Thorobred Tires and Tubes

PREFERRED FOR DEEP DRILLING—

HUGHES TOOLS

ROCK BITS
CORE BITS
TOOL JOINTS
VALVES

● The well shown above is the Superior Oil Producing Co.'s P. O. Hernandez No. 1, the discovery well in the Bosco field, Acadia Parish, La., Smith & McDannald contractors.

Total depth—8915 feet; pressure 1400 lbs.—one of the deepest wells in the Louisiana and Gulf Coast Area.

Hughes Rock Bits, Core Bits, Tool Joints and valves were used throughout.

The photograph above shows (left to right) a Hughes 3-Cone Roller Bearing Rock Bit, a Hughes Hard formation Core Bit Cutter Head and a Hughes Soft formation Core Bit Cutter Head.

HUGHES TOOL COMPANY

Service Plants:
LOS ANGELES, CALIF.
OKLAHOMA CITY, OKLA.
MIDLAND, TEXAS

Main Office and Plant:
HOUSTON,
TEXAS

Export Office:
19 RECTOR STREET,
NEW YORK CITY